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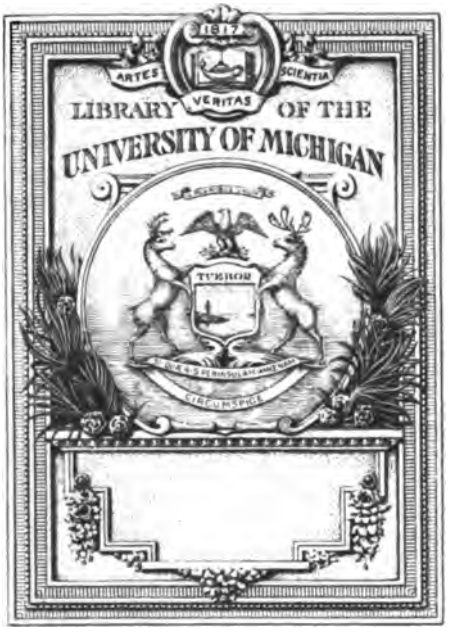
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GEORGE DALGARNO.

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multiplicity of more pressing engagements and pursuits, has never lost sight of the philosophical studies of his early years. I have been able to learn nothing of the author, but what is contained in the following slight notice, which I transcribe from Anthony Wood. "The reader may be pleased to know, that one "George Dalgarno, a Scot, wrote a book, entitled, *Ars Signorum*, "&c. London, 1661. This book, before it went to press, the "author communicated to Dr. Wilkins, *who, from thence taking a* "*hint of greater matter*, carried it on, and brought it up to that "which you see extant. This Dalgarno was born at Old Aber-"deen, and bred in the University at New Aberdeen; taught a "private grammar school with good success for about thirty years "together, in the parishes of S. Michael and S. Mary Mag. in "Oxford; wrote also, *Didascalocophus*, or The Deaf and Dumb "Man's Tutor; and dying of a fever, on the 28th of August "1687, aged sixty or more, was buried in the north body of the "church of S. Mary Magdalen." (Ath. Oxon. Vol. II. p. 506-7.)

The obscurity in which Dalgarno lived, and the complete oblivion into which his name has fallen, are not a little wonderful, when we consider that he mentions among the number of his friends Dr. Seth Ward, Bishop of Sarum; Dr. John Wilkins, Bishop of Chester; and Dr. John Wallis, Professor of Astronomy at Oxford. It is still more wonderful, that no notice of him is taken in the works either of Wilkins or of Wallis, both of whom must have derived some very important aids from his speculations.

This unfairness on the part of Wilkins, has not escaped the animadversion of one of his own biographers. "In the prefatory "epistle (he observes) to the *Essay towards a Real Character*, "Dr. Wilkins mentions several persons who assisted him in this "work, particularly Willoughby, Ray, and Dr. William Lloyd, and

" others; but it is remarkable, that he does not mention Dalgarno, " and the more, because Dr. Wilkins's own name is printed in the " margin of King Charles II.'s letter prefixed to Dalgarno's book, " as one of those who informed his Majesty of Dalgarno's design, " and approved it, as a thing that might be of singular use to " facilitate an intercourse between people of different languages; " which prevailed with his Majesty to grant his said letters of " recommendation to so many of his subjects, especially of the " Clergy, as were sensible of the defectuousness of art in this " particular."—*Biog. Britan.* Art. Wilkins.[5]

That Dalgarno's suggestions with respect to the Education of the Dumb, were not altogether useless to Dr. Wallis, will, I think, be readily admitted by those who take the trouble to compare his letter to Mr. Beverley (published eighteen years after Dalgarno's treatise) with his *Tractatus de Loquela*, published in 1653. In this letter some valuable remarks are to be found, on the method of leading the dumb to the signification of words; and yet, the name of Dalgarno is not once mentioned to his correspondent.

If some of the details and digressions in this note should be censured, as foreign to the principal design of the foregoing Memoir, I can only plead in excuse, my anxiety to do justice,

[5] In Grainger's Biographical History of England, mention is made of a still earlier publication than the *Ars Signorum*, entitled "The Universal Character, by which " all Nations in the World may understand one another's conceptions, reading out of " one common Writing their own Tongue. By Cave Beck, Rector of St. Helen's, in " Ipswich, 1657." This book I have never seen.

The name of Dalgarno (or Dalgarus, as it has been sometimes written) is not altogether unknown on the Continent. His *Ars Signorum* is alluded to by Leibnitz on various occasions, and also by Fontenelle in the *Eloge* of Leibnitz. His ideas with respect to the education of the Dumb, do not seem to have attracted any notice whatever. In fact, they were much too refined and enlightened to be duly appreciated at the period when he wrote.

even at the distance of a century, to the memory of an ingenious man, neglected by his contemporaries, and already in danger of being totally forgotten by posterity. To those whose curiosity may lead them to study his books, the originality of his conceptions, and the obvious application of which some of his principles admit to the peculiarities of the case now before us, will of themselves suggest a sufficient apology."

The preceding extracts exhaust all that is known of George Dalgarno, and of his writings. They are eminently calculated to excite curiosity regarding his speculations on the interesting subjects of a Real Character, and a Philosophical Language; and, to those who take delight in tracing the history of Philosophy, even in her more obscure departments, no apology can be necessary for the present attempt to fulfil Mr. Stewart's generous wish, that the name of Dalgarno should be rescued from oblivion.

EDINBURGH, M.DCCC.XXXIV.

Ars Signorum,

VULGO

CHARACTER UNIVERSALIS

ET

LINGUA PHILOSOPHICA.

Qa poterunt, homines diversissimorum Idiomatum, spatio duarum septimanarum, omnia Animi sua sensa (in Rebus Familiaribus) non minus intelligibiliter, sive scribendo, sive loquendo, mutuo communicare, qam Linguis propriis Vernaculis. Præterea, hinc etiam poterunt Juvenes, Philosophiæ Principia, et veram Logicæ Praxin, citius et facilius multo imbibere, qam ex vulgaribus Philosophorum Scriptis.

Authore Geo. Dalgarno, ——— *hoc ultra.*

LONDINI,

Excudebat *J. Hayes*, Sumptibus Authoris,

Anno reparatæ salutis, 1661.

Shod CAROLOI

KANEL *Sufa, tan Sefap, saf Britannoi suma, Hibernoi, Francoi; tan Krumel saf Tupu Siba Christoisa*

Kanel Sufa

KANELLI ſuna ſaf Nom, ſumpomeſi avvi ſuma, lul, Sava Kanel ſaf Kanelli ſameſa bred Nam ſas Lal; Tan lol-ſas, lelilli puneſi, Lal ſameſu avvi ſuma ben Nom ſas lelil; trim avvi ſaf kuſu ſhom kruſu. Avvi ſufa ſaf kruſu, tim, ſpanu tan ſun-ſamu ſaf Temmu, lul, ſameſi Stenu tipo, ſtafo, tan pomo. Tan ſlun, tim ſtafu ſaf Stenu, lul-dan, Temmu tan Temmu tim popo, ſlun, tim ſtafu ſaf Kanel, lul-dan tim Kanel ſaf Kranelli tibo. Temmu ſameſi Stenu ſefa, ſun, ſhumu ſaf uvvi tan ſtabbu, ſhun; ſas, avvi lola tim ſof-ſefa ſhag Temu. Kanel Sufa, lal Kranel Lala ſhufa ſpafeſi ſhod Lal Temu ſufa, lul, ſpanoſa dan ſapdannu ſhuma ſuba: Lal ſub-dan tiſeſa ſpraſu Lala, ſtume tan pemre trunu Lala ſafeſu tutu lola: Tan Lal tubeſa, ſlam Trinnu Lala, kranelli lala tibo, puneſu Sagu Lala Kana. Stapu ſhuma ſiſreſu Temu lola ſuma; tan lolir ſameſu Tonu tan Stafu Lala, tan Tonu ſaf Stenu, tan (lul tim ſun) Tonu ſaf Sava, pemo bred daddu brepa ſaf Nom. Lol-ſas Kanel Sum-ſefa, tupeſo Kafelli, Tibelli, tan Temelli Lala, tabeſu pipai ſibu tan ſigu ſaf Temu lola; tan lul-dan Lal pemeſa taggu ſaf lelilli ſhop lela, ſim-ſodeſo ſhod Saſel tan Spanel, ſos ſatu ſaf ſpappu ſaf lelil. Lal trim tuneſi Staffu tan Stabbu; ſhom, ſaſ-ſapu lela, lul, ſefreſu lal ſlemeſu tan ſiſreſu Temu lola

ſemo, ſham ſkradu ſnf Sava, Snfu ſnf Lnl Kanel lala, ſim-tipu ſnf Stenu lala, ſigu ſnf uvvi ſuna, tnn ſnbu ſnf Eiv lala. Lolirri tim ſhammu ſuma, ſham lul, lal pebeſi ſnpeſu; tnn lul-dan Sava ſabeſa lal ſham lelirri, trim prebeſu ſhnpeſu. Tnn ſlem lel-dan, lal tim,

Kanel Suf-seſa

Kranel Lnla kruba

Georgoi Dalgarnoi.

CHARLES R.

WHereas We have been informed by the Teſtimonies of divers Learned Men* from both the Univerſities of Our Kingdom of *England*, concerning the great pains taken by *George Dalgarno*, in a Scholaſtick and Literary Deſign, of an *Universal Character* and *Philosophical Language*; All of them approving and commending his Diſcovery, judging it to be of ſingular uſe, for facilitating the matter of Communication and Intercourſe between people of different Languages, and conſequently a proper and effectual Means for advancing all the parts of Real and Uſeful Knowledge, Civilizing barbarous Nations, Propagating the Goſpel, and encreaſing Traffique and Commerce. We underſtanding moreover, by Certificates from ſeveral credible Perſons, that through the various Viciſſitudes of Providence, he hath ſuffered the loſs of a conſiderable Eſtate, by reaſon whereof, he is wholly diſinabled from affording that Charge and Expence for the Effectual proſecuting of this Work, as the Nature of it requires.

We therefore, out of a tender conſideration of the Premiſes, and for manifeſting Our Good Will and Affection towards the promoting of Art, and the encouraging all ſuch ingenious perſons of Our Subjects, who ſhall attempt and Effect any thing tending to Publike Good; As We do Declare, that, We will Our Selves expreſs ſome Token of Our Royal Favour, for the helping forward this ſo Laudable and Hopeful Enterprize; So alſo, Reflecting upon its Common and Univerſal uſefulneſs, We do by theſe

* R. Love, D.D., J. Wilkins, D.D., J. Wallis, D.D., S. Ward, D.D., W. Dillingham, D.D.

Our Letters of Recommendation incite as many of Our Subjects (eſpecially the Reverend and Learned Clergy) as are truly apprehenſive and ſenſible of the defectiveneſs of Art, chiefly in this particular of Language; what great loſs Mankind is at there-through, how acceptable it will be before God, and praiſe worthy among Men, to Encourage and Advance thoſe waies of Learning, wherein the General Good of Mankind is intended; That ſuch would, as their Affections ſhall encline them, and their places enable them, put their helping hands to the bringing forth this (as yet) Infant Deſign, now ſticking in the Birth.

This will give juſt cauſe to Our Poſterity through ſucceeding Generations, while they are reaping the Fruit of Our Ingeny and induſtry, to look back upon Us with Reverence; And from Our Example they will be provoked not to reſt upon what they ſhall have received from Us; but ſtill to be Endeavouring to proceed in a further repairing the Decayes of Nature, untill Art have done its laſt, or, which is moſt probable, Nature ceaſe to be, or be Renewed.

Given at Our Court at *Whitehal* this 26th of *November*, in the 12th Year of our Reign.

Will. Morice.

Lectori Philosopho.

JUdicio tuo (Lector Philosophe) Inventa hæc mea de Confusionis Linguarum remedio (quantum scil. malum hoc Arte reparabile est) visum est prius subjicere, quam inertis Vulgi manibus terantur. Lege, perlege, et relege. Cave autem ne inter judicandum, non separanda separes, id est, partem Logicam et Grammaticam; sed ut sententiam æquius feras, finem ultimum (Communicationis facilitatem) primo respice. Experire quid veri contineat sententia cujusdam Viri Docti de hæc Arte. Tria Momenta ei assignabat. 1. Dixit Artem hanc videri plane impossibilem. 2. Possibilem quidem sed valde difficilem. 3. Vero, mire et supra fidem facilem. Forte erudite Lector, antequam Libellum hunc in manus sumpseras, tibi videbatur hæc Ars omnino fabulosa et impossibilis; Sed ex iis quæ hic dicta sunt, jam vides possibilem, sed adhuc valde difficilem: Quare progredere adhuc ultra ad Praxin, eique paululum diligenter intende, et nihil dubito quin veritatem tertii maxima cum voluptate et emolumento percipies. Hominibus Sciolis qui hoc unicum possunt aliorum Scripta carpere, Artiumque Prima Principia quantum in ipsis est funditus evertere (dum tamen ipsi nihil ponunt) mecum subride. Aut Artium omnium quædam Principia sunt stabilienda, aut omnis Ars ruitura est; maxime vero in Arte Signorum, præ aliis omnibus, Arbitrium est necessario admittendum. Pragmaticis vero, qui falcem in alienam messem injicere sunt parati, ut festinent lente, et caveant ne simul cum laboribus, honorem etiam quem ambiunt perclitentur, mecum consule. Absit autem hæc a me jactanter dicta sint, quasi existemarem me solum huic Suscepto parem: Tantum enim

abeſt, meis viribus confidam, ut, per hæc ad omnes Doctos provocem qui Tractatulum hunc in manus ſument; quorum Ingenia, ſtudia, otiumque et ſeceſſus Cenſores idoneos fecerint; ut, ſi quæ laus, ſi quis honor, ſi quis Generis Humani amor, ſi quod ſtudium Artes et Rem Literariam promovendi, ſi quæ denique Poſterorum cura: Per omnia hæc Menti Generoſæ chariſſima, obteſtor, rogo, flagito, obſecro; Doctrinam hanc novam, jam quinque fere Annorum ſtudio ad hanc maturitatem per ductam, ſevere (ſimul tamen candide et ſincere) examinent, probent; mihique ſua ſenſa de ea quam citiſſime renuncient. Si enim in aliquo ad melius conſulant, et Errorem meum non ſolum detexerint, ſed ſine majore Errore emendaverint, promitto me Animo facile et grato eorum monitis obtemperaturum. Cumque expectandum non ſit, unicum quemvis hominem, omnibus Notionibus Naturæ et Artis Nomina apta, Philoſophice et ſecundum Rerum Naturas inſtituere poſſe; niſi prius earum accuratas Definitiones a variarum Artium peritis habeat: Vos igitur Viros Virtuoſos et ſingularium Artium vere Magiſtros compello. Quiſque de ſuo penu ad hanc Babelem reſtaurandam materiam miniſtret. En jactum Fundamentum ſatis amplum et firmum: Non enim vel minimum dubito, quin omnes Notiones Naturæ et Artis ex Radicalibus hic poſitis ſatis perſpicue definiri poſſint: Hoc tamen unum intendite, ut Rerum Deſcriptiones, Differentias maxime Communes et notas exhibeant, et ab aliis rebus maxime diſtinguentes; idque quam pauciſſimis vocibus, ne voces hujus Linguæ ex iis componendæ in nimiam longitudinem excreſcant. Homines Superſtitioſe nimis, ſuſceptum hoc, Facinus Audax a Deo vetitum opinantes, ne audite. An Deus O. Hominibus libertatem indulſit, Carduos et Sentes ex agris eradicandi? Errores autem ex Cœleſti Animorum Solo exſtirpare prohibuit? Abſit! Ne credite. Deus ipſe ejuſque Principaliores Miniſtre (hic in Terris) Natura ſcil. et Ars, eadem Methodo in operando utuntur, id eſt, progrediendo ab imperfectioribus ad Perfectiora. Quid hinc de hac Arte concludam facile eſt colligere. Quantus autem ſit futurus ejus fructus (præcipue ſi in Scholas introducatur ejus uſus) in Poſteris Seculis, vos Viros Doctos variis veſtris conjecturis relinquo. Valete.

Geo. Dalgarno.

Alphabetum hujus Linguæ Philoſophicæ. Singulæ Literæ in principio dictionis ſunt Characteriſticæ Notionum Genericarum in Tabulis, ut infra indicatur.

A	Ens, res
H	Substantia
E	Accidens
I	Ens Concretum ex Subst. et Accid.
O	Corpus
ɤ	Spiritus
U	Concretum ex Corpore et Spiritu. 1. Homo
M	Concretum Mathematicum
N	Concretum Physicum
F	Concretum Artefactum
B	Accidens Mathematicum
D	Accid. Physicum Generale
G	Qualitas Sensibilis
P	Accidens Sensitivum
T	Accidens Rationale
K	Accidens Politicum
S	Accidens Commune, alias, servilis
R	Servilis, significat oppositionem
L	Servilis, significat medium inter extrema
V	Characterist. vocis numericæ.

Notæ Numericæ.

A	1	M	1	Vado 154
H	2	N	2	Ventum 32861
E	3	F	3	Vapulo 17604
O	4	B	4	Vel 30
ɤ	5	D	5	Vendo 3254
U	6	G	6	Vetuit 38608
AI	7	P	7	Valili 10000
EI	8	T	8	Void 95
OI	9	K	9	Vestis 380
I	0	L	0	Verrere 333

Placuit Gratitudinis ergo, et ut alii incitentur ad Artem hanc Novam ulterius propagandum, eorum Nomina adſcribere, Quorum munificentia (cum meis laboribus) Ars hæc a primo Inventionis ſemine ad hanc maturitatem crevit, jamque Lucem Publicum videt. Horum nemo infra ſummam unius Libræ Anglicanæ, nemo ſupra decem, largitus eſt.

R. Boile Com. a Corke. Fat. German.
G. Morice Baronet Secret. Regius.
C. Culpeper Baronet.
J. Keate Baronet.
G. Crook Baronet.
T. Dillingham T. D.
G. Dillingham T. D.
J. Wilkins T. D.
S. Ward T. D.
H. Wilkinson T. D.
F. Walsel T. D.
R. Whichcoat T. D.
J. Bathurst M. D.
G. Pettie M. D.
A. Morgan M. D.
J. Stock Armig.
Whitle Armig.
Baccow Armig.
Gold Armig.
J. Sparrow Armig.
L. Fogge T. B.
S. Byfield A. M.
J. Tillotson A. M.
Cooper A. M.
Staughton A. M.
Floyd A. M.
R. Cumberland A. M.
T. Branker A. M.
F. Lodwick Civ. Lond.
E. Bale Civ. Lond.
T. Slater Civ. Lond.
D. Henchman.

LEXICON GRAMMATICO-PHILOSOPHICUM,

SEU

Tabulæ Rerum, et Notionum omnium Simpliciorum, et Generaliorum, tam Artefactarum quam Naturalium, Rationes, et Respectus communiores, Methodo Prædicamentali ordinatas, complectentes: Quibus significandis, Nomina, non Casu, sed Arte, et Consilio, servata inter Res et Signa convenientia Analogica, instituuntur. Ex quibus, Rerum et Notionum aliarum omnium magis Complexarum et specialorum Nomina, vel Derivatione, vel Compositione, in una vel pluribus vocibus, per Regulas quasdam Generales et certas, secundum Analogiam Logico-Grammaticam, formantur; Ita ut Nomina sic formata, Rerum Descriptiones ipsarum Naturæ consentaneas, contineant.

Av Ens, Res
Hv Substantia
Ev Accidens
Iv Ens completum, vel concretum
Ov Corpus
Yv Spiritus
Vv Compositum; id est, Homo.

Meis Concretum Mathematicum.

MeiM Species simplices.

mam *punctum*
mɳm *linea*
mem *superficies*
mim *solidum.*

MeiB Figura.

mab *circulus*
mɳb *sphæra*
meb *spira*
mib *cubus*
mob *conus*
mʊb *cilandis*
mub *piramis.*

Partes Figurae.

ab *basis* r. *cacumen*
ɳb *latus* r. *angulus*
eb *perimetrum* r. *area*
ib *axis* r. *polus*
ob *gumphus* r. *impages.*

Neis Concretum Physicum.
NeiMNeiF Inanimatum.
NeiM Simpler.

nam *cœlum*
nɳm *ignis*
nem *aer*
nim *aqua*
nom *terra.*

Partes Coeli.

as *stella*
ar *luna*
al *sol.*

Partes ignis.

ŋs *fumus* r. *flamma*
ŋr *cinis* r. *fuligo.*

Partes aeris.

es *nubes*
er *ventus.*

Partes aquae.

is *mare* r. *fluvius*
ir *fons* l. *palus* r. *rivus.*

Partes terrae.

os *continens* r. *insula*
or *mons* l. *planities* r. *vallis*
ol *cavea* r. *rupes.*

NeiN Meteozon.

nan *ignitum*
nŋn *aerium*
nen *aqueum*
nin *terrenum.*

NeiF Minerale.

naf *medium*
nŋf *lapis*
snŋf *lapis pretiosus*
nef *metallum.*

NeiDBeiG Planta.

Sneib *imperfecta.*

NeiBeiD Herba.

NeiB Vesca.

nab *bestiæ vesca*
nŋb *homini in folio*
neb *in radice*
nib *in fructu*
nob *legumen*
nʊb *frumentum*
nub *condimentum.*

SNeiBeiD Miscellanea.

snab *marina*
snŋb *lacustris*
sneb *junci et arundines*
snib *convolvula*
snob *spinosa*
snʊb *filices*
snub *scabiosa*
snad *tomentosa*
snŋd *umbellifera*
sned *corimbifera*
snid *lactaria*
snod *nervosa*
snʊd *linosa*
snud *semper viva.*

NeiD Flore Insignis.

nad *bulbosa*
nŋd *non bulbosa.*

NeiG Lignosa.

nag *suffrutex*
nŋg *frutex spinosus*
neg *semper viridis*
nig *non spinos. seminif.*
nog *bacciferus.*

S NeiG Arboz.

snag *sterilis*
snŋg *glandifera*
sneg *conifera*
snig *nucifera*
snog *prunifera*

snvg *pomifera*
snug *acinifera.*

Partes Plantae perennes.

ad *succus*
ŋd *radix* l. *truneus* r. *ramus*
ed *cortex* l. *caro* r. *medulla*
id *geniculum* r. *internodium*
od *spina* r. *lanugo*
vd *gummi* r. *resina.*
ud *surculus.*

Partes Annuae.

ag *folium* l. *flos* r. *fructus*
ŋg *pappus*
eg *calix*
ig *palea* r. *siliqua*
og *spica*
vg *arista*
ug *putamen* r. *nucleus.*

NeiPTeiK Brutum
neipeit imperfectum
SNeiPTeiK Exangue
s Nei p Aerium Volatile.

snap *detectipennis*
snŋp *bipennis*
snep *vaginipennis.*

s Nei t Aqueum.

snat *molle apodum*
snŋt *molle pedatum*
snet *crustaceum caudatum*
snit *crustaceum rotundum*
snot *testaceum turbinatum in anfractum*
snvt *testac. turb. in orbem*
snut *conchae.*

s Nei k Terrestre.

snak *apodum*
snŋk *paucipedatum*
snek *multipedatum*

NeiPTeik Sanguineum.
NeiP Aerium id est, Avis.

nap *carnivora*
nŋp nocturna
nep *canora*
nip *domestica*
nop *pulveratricea*
nvp *aquatica*
nup *palmipes.*

Partes Avis.

spe *penna* r. *pluma*
spi *ala*
spo *crista.*

Neit Aqueum id est Piscis.

nat *squamosus*
nŋt *lævis*
net *cartilagineus*
nit *planus*
not *fluviatilis*
nvt *cæte.*

Partes Piscis.

ot *branchia*
vt *squama* r. *pinna.*

Neik Terrestre.

nak *oviparum*
nŋk *solidipes*
nek *bisulcum*
nik *multifidum majus*
nok *multifidum minus*
nvk *sub terra degens*

nuk *serpens*
neiteik *amphibion*
Partes Bruti in Genere.

eiM Excrementitiae.

am *crinis* r. *unguis*
ηm *cholera* r. *melancholia*
em *stercus* r. *urina*
im *mucus*
om *cauda* r. *juba*
υm *cornu* r. *ungula*.

eiN Partes Fluidae utiles.

an *humar* r. *pituita*
ηn *sanguis* r. *spiritus*
en *lac* r. *semen*
in *modulla* r. *cerebrum*
on *chylus*.

eiF Spermaticae.

af *os* r. *cartilago*
ηf *cutis* r. *membrana*
ef *caro* r. *adeps*
if *vena* r. *arteria*
of *nervus* r. *fibra*
υf *ligamentum*.

Meis Caput r. Collum.

ma *cranium* r. *facies*
mη *oculus* r. *aurus*
me *frons* r. *occiput*
mi *cilium*
mo *tempora*
mυ *nasus*.

Neis Os.

na *dens* r. *lingua*
nη *gingiva*
ne *palatum*
ni *labium* r. *mentum*
no *bucca*
nυ *gula*
nu *gurgulio*.

Feis Truncus.

fa *pectus*
fη *mamma* r. *umbilicus*
fe *scapula* r. *coxa*
fi *costa* r. *spina*
fo *venter* r. *lumbus*
fυ *nates*.

s meis Artus.

sma *manus* r. *pes*
smη *brachium* r. *femur*
sme *cubitus* r. *tibia*
smi *cubitus* r. *genu*
smo *carpus* r. *calx*
smυ *manus* r. *pes parvus*
smu *digitus* r. *digitus pedis*.

s Neis Partes Organicae ventris infimi.

sna *æsophagus* l. *ventriculus* r. *intestina*
snη *peritoneum* l. *omentum* r. *mesenterium*
sne *epar* r. *testes*
sni *lien* r. *fel*
sno *vesica* r. *ren*
snυ *uterus* r. *virga*
snu *fætus* r. *ovum*.

FLeis Partes mediae cavitatis.

fla *diaphragma*
flη *pulmo*
fle *cor*.

Feis Concretum Artefactum.
FeiMNeiF Necessarium.
FeiM victus et Amictus.
FLeiM Cibus.

flam *panis*
flɳm *potus*
flem *jus Condimentum*
flim *butyrum*
flom *caseus*
flʊm *fartum*
flum *artocreas.*

FReiM Amictus.

fram *filum*
frɳm *vitta*
frem *pannus*
frim *pulvinar*
from *saccus*
frʊm *ornamentum.*

FeiN Aedificium.

fan *domus*
fɳn *navis*
fen *pons.*

Partes Aedificii Generaliores.

ap *tignum* r. *asseres.*
ɳp *later* r. *cæmentum*
ep *columna* r. *arcus*
ip *cancelli*
op *scala*
ʊp *vallum* r. *agger*
up *obex.*

eiK Partes Specialiores.

ak *ostium* r. *fenestra*
ɳk *caminus* r. *fornax*
ek *grundia*
ik *vestibulum* r. *postica*
ok *contignatio*
ʊk *transtra* l. *teguli* r. *capreoli*
uk *tectum* l. *paries* r. *pavimentum.*

Partes Navis.

at *malus* r. *transenna*
ɳt *clavus* r. *anchora*
et *remus* r. *velum.*

Suppeller Varia.

fam *canalis*
fɳm *funis*
fem *theca*
fim *acicula*
fom *acus*
fʊm *forfex*
fum *pecunia.*

FReiN Suppeller Domestica.

fran *mensa*
frɳn *candela*
fren *vas*
frin *cathedra*
fron *sporta*
frʊn *arca*
frun *lectus.*

FleiN Suppeller Rustica.

flan *aratrum*
flɳn *occa*
flen *ligo*
flin *currus.*

FeiF ad Communicandum.

faf *atramentum*
fɳf *charta*
fef *liber*

FeiBDeig Voluptuarium.

Fei B Musicum.

fab *organum pneumaticum*
fnb *lyra*
feb *cymbalum*
fib *pandura*
fob *tympana*
fub *tuba*
fub *campana.*

Fei D Oculum Delectantia.

fad *ludus*
fnd *pictura*
fed *spectaculum.*

FeiPTeiK Perniciosa.

Fei P Arma.

fap *gladius*
fnp *bombarda*
fep *arcus*
fip *sagitta telum*
fop *hasta*
fup *clypeus.*

AIv Concretum Spirituale
EIv Anima
OIv Angelus
Vv Homo seu Concretum Compositum.
DEUS *Sava*, id est, Causa prima.

TABULA ACCIDENTIUM.

Seis Accidens Commune.

SAs Causa.

sam *efficiens* l. *medium* h. *finis*
san *materia* h. *forma*
saf *auxilium* l. *permissio* h. *impedimentum*
sab *instrumentum*
sad *preparans* h. *conservans*
sag *exemplum*
sap *occasio*
sat *meritum*
sak *fortuna* h. *consilium*

SHs Modi Existendi.

snm *independens* h. *dependens*
snn *simplex* h. *compositum*
snf *pertinere*
snb *salus* h. *periculum*
snd *permanens* h. *mutabile*
sng *habere* h. *carere*
snp *vivere* h. *mori*
snt *vices*
snk *ordinarium* h. *extraordinarium.*

SEs Modi Agendi.

sem *incipere* l. *continuare* h. *finire*
sen *repetere*
sef *potentia*
seb *debere*
sed *oportere*
seg *expedire*
sep *facile* h. *difficile*
set *solere habitus*
sek *spontaneitas* h. *violentia.*

SIs Perfectio.

sim *bonum* l. *indifferens* h. *malum*
sin *pulchrum* h. *deforme*
sif *purum* h. *impurum*
sig *utile* h. *noxium*
sip *jucundum* h. *molestum*
sit *aptum* h. *ineptum.*

SOs Consentanea r. Dissentan.

som *idem* l. *diversum* h. *oppositum*
son *respectivum* h. *absolutum*
sof *privativum* h. *positivum*
sob *consistens* h. *inconsistens* seu *contradictorium*
sod *actio* h. *passio*
sog *subjectum* h. *adjunctum*
sop *actus* l. *medium* h. *objectum*
sot *substantia* h. *circumstantia.*

Srs Gradus Comparationis.

sum *valde* l. *mediocriter* h. *parum*
sun *magis* l. *æque* h. *minus*
suf *maxime* h. *minime*
sub *prius* l. *simul* h. *posterius*
sud *excessus* l. *satis* h. *defectus.*

SVs Relatio Numeri.

Sum *unitas* h. *multitudo*
sun *totum* h. *pars*
suf *reliquum*
sub *proportio*
sud *ordo*
sug *commune* h. *proprium.*

Beis Accidens Mathematicum.

BAs Affectiones primae.

bam *longum* r. *breve*
ban *latum* r. *augustum*
baf *profundum* r. *breve, depressum*
bab *rectum* r. *curvum*
bad *continuum* r. *discretum*
bag *concavum* r. *convexum*
bap *planum* r. *gibbosum.*

BHs Positio.

bhm *perpendiculum* l. *inclinans* r. *jacens*
bhn *parallelum* l. *secans* r. *transversum*
bhf *rectus* r. *obliquus*
bhb *acutus* r. *obtusus*
bhd *incidens* r. *refractus*
bhg *directus* r. *reflexus*
bhp *supinus* r. *pronus.*

BEs Situs.

bem *distantia* r. *contiguitas*
ben *supra* r. *infra*
bef *ante* r. *post*
beb *dextra* r. *sinistra*
bed *extra* r. *intra*
beg *circundans*
bep *extremum* r. *medium.*

Deis Physicum Generale.

DAs Maxime Communia.

dam *motus* r. *quies*
dan *tempus* r. *æternitas*
daf *præteritum* l. *præsens* r. *futurum*
dab *novum invenis* r. *antiquum*
dad *locus*
dag *plenum* r. *vacuum*
dap *præsentia* r. *absentia.*

DHs Modi Motus.

dhm *gravitas* r. *levitas*
dhn *celeritas* r. *tarditas*
dhf *conatus*
dhb *vis*
dhd *sustinere* r. *inniti*
dhg *cedere* r. *resistere*

DEs Motus Simplex.

dem *flectere*
den *jacere*
def *vertere*
deb *trahere*
ded *cadere* r. *surgere*
deg *tollere* r. *deponere*
dep *portare*
dek *contrahere* r. *dilatare*.

DIs Motus cum Contactu.

dim *concursus*
din *fricatio*
dif *terere*
dib *premere*
did *pulsio* r. *vulsio*
dig *percutere*
dip *sigillare*, *imprimere*
dit *tegere*
dik *pungere*.

DOs Motus Separans.

dom *scindere*
don *frangere*
dof *lacerare*
dob *forare*
dod *solvere* r. *ligare*
dog *aperire* r. *claudere*
dop *plicare* r. *explicare*
dot *spargere* r. *colligere*.

DUs Motus Retentio.

dum *hærere*
dun *tenere*
duf *prehendere*.

Geis qualitas sensibilis.

GAs Tactus.

gam *calor* r. *frigus*
gan *humiditas* r. *siccitas*
gaf *densitas* r. *rarias*
gab *durities* r. *mollities*
gad *crastitias* r. *subtilitas*
gag *arriditas* r. *lubricitas*
gap *lentor* r. *friabilitas*
gat *asperitas* r. *lævitas*
gak *fluiditas* r. *consistentia*.

GHs Sabor.

ghm *dulce* r. *amarum*
ghn *pingue* r. *austerum*
ghf *insipidum* r. *salsum*
ghb *acre* r. *acidum*.

GEs Odor.

gem *fragrans* r. *fætidus*
gen *graveolentia*.

GIs Sonus.

gim *articulatus* r. *confusus*
gin *echo*
gif *acutus* r. *gravis*
gib *fortis* r. *debilis*
gid *clarus* r. *obscurus*
gig *asper* r. *æquabilis*.

GOs Color.

gom *lux* r. *tenebræ*
gon *diaphanum* r. *opacum*
gof *album* r. *nigrum*
gob *flavum* r. *cæruleum*
god *rubrum* r. *viride*
gog *pallidum* r. *purpureum*
gop *cæsium* r. *fuscum*.

GUs Communes Affectiones mistorum.

gum *mixtio*

gun *fermentatio*
guf *temperamentum*
gub *concretio*
gud *concoctio*
gug *alteratio*
gup *generatio* r. *corruptio.*

GVs Affectiones Vegetabiles.

gum *nutritio* r. *fames*
gun *fertilitas* r. *sterilitas*
guf *pallulare*
gub *crescere* r. *decrescere*
gud *florere* r. *marcescere*
gug *sanitas* r. *morbus*
gup *maturitas* r. *immaturitas.*

Peis Accidentia Sensitiva.

PAs Generaliora.

pam *spirare*
pan *vocem edere*
paf *edere* r. *bibere*
pab *vigilare* r. *dormire*
pad *sexus*
pag *mas gignere* r. *fæmina*
pap *libido*
pat *concipere* r. *parere*
pak *educare.*

PHs Motus Animalis.

pɳm *volare*
pɳn *natare*
pɳf *serpere*
pɳb *gradi*
pɳd *ire* r. *venire*
pɳg *saltare*
pɳp *fugere* r. *sequi*
pɳt *ducere*
pɳk *discumbere* r. *surgere.*

PEs Sensus Interni.

pem *cognoscere*
pen *memoria*
pef *phantasia*
peb *appetitus*
ped *voluptus*
peg *providentia* r. *experientia.*

PIs Inclinatio Naturalis.

pim *simplicitas* r. *sagacitas*
pin *ferus* r. *mitis*
pif *gravis* l. *levis*
pib *constans* r. *mutabilis*
pid *affabilis* r. *morosus*
pig *sobrietas* r. *affectatio*
pip *diligentia* r. *ignavia*
pit *crudelitas* r. *misericordia*
pik *gratitudo.*

POs Passiones Principales.

pom *admiratio*
pon *amor* r. *odium*
pof *spes* r. *metus*
pob *gaudium* r. *lætitia*
pod *ira* r. *patientia*
pog *pudor* r. *gloriatio*
pop *æstimatio* r. *contemptus*
pot *animositas*
pok *liberalitas* r. *parsimonia.*

Prs Passiones minus Principales.

pum *pœnitentia*
pun *imitatio*
puf *zelus*
pub *invidia* r. *commiseratio*
pud *vindicta*
pug *consternatio*

pup *adulatio*
put *æmulatio*
puk *concupiscentia.*

PVs Passionum Affines.

pum *curare*
pun *expectare*
puf *observare*
pub *cavere*
pud *attendere*
pug *simulare*
pup *suspicio*
put *audere.*

SPAs Effectus Passionum.

Spam *ridere* r. *flere*
span *canere* r. *plorare*
spaf *ludere*
spab *quærela*
spad *provocare*
spag *placere* r. *offendere*
spap *lis* r. *concordia*
spat. *insidiari*
spak *fallere.*

SPHs Alii Effectus.

spɳm *quærere*
spɳn *invenire* r. *perdere*
spɳf *offerre* r. *acceptare*
spɳb *tradere* r. *recipere*
spɳd *sumere* r. *dimittere*
spɳg *luctari*
spɳp *laborari* r. *otiari*
spɳt *lassitudo.*

Teis Accidens Rationale.

TAs Actus Intellectus primi.

tam *ingenium*
tan *conscientia*
taf *curiositas*
tab *apprehensio perceptio*
tad *astensus* r. *distensus*
tag *judicium*
tap *discursus*
tat *meditatio*
tak *machinatio.*

THs Et Primis Orti.

tɳm *supponere* r. *inferre*
tɳn *addere* r. *subducere*
tɳf *multiplicare* r. *dividere*
tɳb *probare*
tɳd *comparare*
tɳg *mensurare*
tɳp *conjicere*
tɳt *includere* r. *excludere.*

TEs Habitus Intellectuales.

tem *ars*
ten *scientia*
tef *sapientia*
teb *opinio*
ted *intelligentia*
teg *discretio.*

TIs Intellectus Expressio.

tim *affirmare* r. *negare*
tin *loqui* r. *scribere*
tif *interpretari*
tib *docere* r. *discere*
tid *interrogare* r. *respondere*
tig *narrare*
tip *fama*
tit *definire* r. *distinguere*
tik *restringere* r. *ampliare.*

TOs Signum.

tom *litera* l. *syllaba* r. *dictio*

ton *nomen* r. *casus nominis*
tof *figura*
tob *genus* l. *species* r. *individuum*
tod *propositio* r. *oratio*
tog *prosa* r. *carmen*
top *periodus* r. *accentus*
tot *sectio caput*
tok *regula* r. *exceptio.*

TTs Voluntas.

tum *libertas* r. *coactio*
tun *deliberatio* r. *determinatio*
tuf *consensus* r. *dissensus*
tub *virtus* r. *vitium*
tud *electio* r. *rejectio*
tug *optare*
tup *credere* r. *diffidere*
tut *suscipere.*

TVs Voluntatis Expressio.

tum *suadere* r. *dissuadere*
tun *petere* r. *deprecari*
tuf *benedicere* r. *maledicere*
tub *hortari* r. *reprehendere*
tud *laudare* r. *vituperare*
tug *minari* r. *consolari*
tup *imperare* r. *obedire*
tut *consulere.*

STeis Œconomicum.

STAs Relatio Morum.

stam *ceremonia*
stan *civilitas* r. *rusticitas*
staf *salutare* r. *valedicere*
stab *jocare* r. *irridere*
stad *comitari*
stag *visitare*
stap *tractare*
stat *congratulari.*

STHs Variae Denominationes Personarum et Rerum.

stηm *superior* l. *æqualis* r. *inferior*
stηn *publicus* r. *privatus*
stηf *nobilitas honor* r. *plebeitas*
stηb *divitiæ* r. *paupertas*
stηd *valor pretium*
stηg *lucrum* r. *damnum*
stηp *sumptus*
stηt *merces*
stηk *merx.*

STEs Relatio Societatis.

stem *familia*
sten *natio*
stef *maritus*
steb *cognatus* r. *affinis*
sted *proximus* r. *peregrinus*
steg *hospes*
step *familiaris*
stet *amicus* r. *hostis*
stek *creditor* r. *debitor.*

STIs Modi Acquirendi r. Tenendi Dominium.

stim *hæreditatio*
stin *legatio*
stif *donatio*
stib *possessio*
stid *habitatio*
stig *præscriptio.*

STOs Contractus.

stom *tractare*
ston *permutare*
stof *emere* r. *vendere*
stob *locare* r. *conducere*
stod *deponere*

stog *sponsionem facere*
stop *accommodare.*

STTs Modi Obligandi r. Dissolvendi.

stum *promittere* r. *præstare*
stun *stipulare*
stuf *pignerare*
stub *fidejubere*
stud *solvere*
stug *acceptillare*
stup *condonare*
stut *compensare.*

Keis Politicum.

KAs Relatio Officii.

kam *dominus* r. *servus*
kan *rex* r. *subditus*
kaf *clericus* r. *laicus*
kab *tutor* r. *pupillus*
kad *legatus*
kag *dux* r. *miles*
kap *consiliarius.*

KHs Relatio Officii in Judiciis.

kȝm *judex* r. *litigans*
kȝn *patronus* r. *cliens*
kȝf *actor* r. *reus*
kȝb *testis*
kȝd *officialis.*

KEs Judiciorum Materia.

kem *res* r. *persona*
ken *actio causa*
kef *jus* r. *factum*
keb *lex*
ked *titulus.*

KIs Partes Litigantium.

kim *citare* r. *apparere*
kin *allegare* r. *probare*
kif *causam agere*
kib *accusare* r. *excusare*
kid *appellare* r. *submittere*
kig *confessio.*

KOs Partes Judicis.

kom *decernere*
kon *absolvere* r. *damnare*
kof *punire* r. *parcere*
kob *proscribere*
kod *arrestare*
kog *incarcerare*
kop *confiscare.*

KTs Delicta.

kum *injuria*
kun *furtum*
kuf *fornicatio*
kub *rebellio*
kud *factio*
kug *hæresis*
kup *crimen falsi*
kut *proditio*
kuk *incantatio*

KUs Bellum.

kum *invadere* r. *defendere*
kun *excubare*
kuf *obsidere*
kub *præliari*
kud *induciæ*
kug *captivare*
kup *spoliare*
kut *vincere* r. *dedere.*

SKAs Religio r. Superstitio.

skam *gratia* r. *natura*
skan *felicitas* r. *miseria*
skaf *colere* r. *profanare*
skab *jurare*
skad *orare* r. *laudare*
skag *sacrificium*
skap *sacramentum*
skat *mysterium*
skak *miraculum*.

Particulæ Pronominales.

lal *ego*
lŋl *tu*
lel *ille*
lol *hic*
lʊl *ipse*
lul qui.

Flexiones Grammaticae: Singula Exempla pro Regulis habeantur nullam exceptionem patientibus.

Sim *bonus* Radix, in Oratione

Particula.

slim *indifferens* medium
srim *malus* oppositum
sim*u* *bonitas*
sim*mu* *bonitates*.

Adjectiva Varia.

pon*e* *amans* activum
pon*o* *amatu* passivum
Sim*a* *bonus* neutrum
pon*emp* *amorosus* et *ax*
pon*omp* *amabilis*
pon*omb* *amandus*
pon*emb* *amaturus*

Gradus Comparationis.

sim*am* *valde bonus*
sim*an* *mediocriter bonus*
sim*af* *parum bonus*
sim*ab* *melior*
sim*ad* *æque bonus*
sim*ag* *minus bonus*
sim*ap* *optimus*
sim*at* *mediocriter bonus*
sim*ak* *minime bonus*.

Flexiones Temporis et Modi.

pon*re* *facio amare*
pon*esa* *amavi*
pon*esŋ* *amaveram*
pon*ese* *amabam*
pon*esi* *amo*
pon*eso* *amato*
pon*oso* *amator* (imperative)
pon*esʊ* *amare*
pon*osʊ* *amari*
pon*esai* *amanter*
pon*ompai* *amabiliter*.

Alia Derivativa Compendii Causa.

pon*el* *persona amans*
sunilli *omnes personæ*
pon*or* *amatum* vel *res amata* sunirri *omnia* vel *res omnes*
nŋ*fim* *magnus lapis*
nŋ*fif* *lapillus*
nŋ*find* *cumulus lapidum* — oi *Exoticum*;
Angl*oi* Gall*oi*.

Etymologia Præcipuarum Particularum.

Ab sod *sam*, *bem*
ac tnf
ad *shod*, *brem*
adhuc *slem*, *subdan*
aliquis *sum shun*
an *tid*
ante *bef*
apud *bem*, *shvmbem*
at *slom*, *trnf trimshaf*
aut *trnb*, *stom*.
Circum *beg*
citra *lolinb*, *shng*.
contra *shom*
coram *bef mnssi*
cum *slwb*, *dap*, *slam*, *sab*
cur *lulsas*.
De *snf*, *shop*
deinde *shvbdan*, *shvbsud*
denique *shvbapdan*
deorsum *bnsbren*.
E ex *san*, *bed*
ergo, *lelsas*, *trnm*
et *tnf*
etiam *tnf*
etsi *tnm*
extra *bed*.
Fere *svfshun*, *svmshvf*
forte *sak*.
Hic *loldad*.
Jam *loldan*
ideo *lelsas*
illic *leldad*
in *bred*, *dan*
inter *bem*, *breg*, *gvm*
interdum *shundan*
interim *luldan*, *leldan*, *dlaf*
intra *bred*
invicem *snt*, *sum*, *sum*
ita *tim*
iterum *seu*, *vn*
item *tnf*
juxta *brem*, *shumbem*, *slvn*, *sos*
Magis *svn*.
Nam *sas*, *tnf*.
ne *trim*
nimis *svd*
nimis-parum *srvd*
non *trim*
nunc *loldan*.
Ob *sham*, *sas*, *shom*
omnis *sun*.
Per *sod*, *sam*, *sab*, *sag*, *slam*, *brnn*, *blnn*
post *shvb*, *bref*
præ *svn*, *bef*
præter *svn*, *brnn*
præterea *tnf*, *svn*, *shvb*
pro *snt sos*, *bef svb*
prope *shvmbem*, *sufshun*, *shvmsuf*
propter *sham*, *sas*, *shvumbem*.
Quam *sve tng*
quasi *slvn*, *ses*
qui *vel* quis *lul*
quoque *tnf*, *slvn*.
Satis *slvd*
sed *shom*, *trnf*
secundum *sos shvmbem*
sine *shng*, *drap*, *sof*
simul *slwb*
sub *dnd*, *shvb*, *bren*
super *drnd*, *bren*
sursum *bnsben*

supra *ben*.
Tam *slvn*, *lolbes*, *lelbes*
tamen *trimshaf*, *tnm*
tandem *shvb*, *dan bam*
tenus *bns brem*
trans *brnn shomieb*.
Versus *bns*
vel *trnb*
vix *shep*.
ullus *av*
ut *sham*, *slvn*.

Oratio Dominica.

Pagel lalla lul tim bred Nammi, 1. *Tofu lnla skamroso*. 2. *Kanu lnla prndeso*. 3. *Tvsu lnla samoso ben Nommi*, *slvn ben Nammi*. 4. *Stifeso shod lalli loldanve*, *flamu lalla danvesa*. 5. *Stvpeso shod lalli strekku lalla*, *slvn*, *lalli stvpesi shod strekkel lalla*. 6. *Trim pnteso lalli tndosv shom*, *sobreso lalli sod shimu*; *sas*, *Kanu Sefu*, *tnnu tim lnla*, *loldan tnf sundan*. Tvposo.

CAP. I.

DE PRIMIS SIGNORUM ELEMENTIS, SPECIATIM VERO DE SONIS SIMPLICIBUS.

ARTEM primam maximeque neceſſariam, *Artem* ſcil. *Signorum*, hucuſque negleƈtam, alias vero (quantum ſine hac poterant) ingenioſe et laborioſe excultas, inertiæne genus humanum accuſabo? Anne potius Numinis ſpeciali Decreto, Artem hanc tantas in rebus humanis mutationes portendentem, in ultima Mundi tempora reſervante, excuſabo? Artem igitur hanc ab aliis non inventam, mihi vero vere repertam pateſaƈturus, a primis ejus Elementis *Literis* ſc. exordium ducam; earumque Philoſophiam paucis et perſpicuetradam.

Optime meruit de genere humano, qui primus docuit voces humanas in quoſdam ſimpliciſſimos primos et irreſolubiles ſonos reſolvere; quam Inventionem certiſſimum eſt præceſſiſſe Inventionem Literarum Alphabeticarum, quam nos vulgo miramur; hæ enim nihil ſunt aliud quam Signa Signorum, id eſt ſonorum, adeoque illis neceſſario poſteriora. Non quidem dico hanc Inventionem omnem Literarum uſum præceſſiſſe; nam non minus certum videtur uſum Charaƈterum, quatenus Rerum ipſarum et mentis Conceptuum immediate ſignificativi ſunt, ante hanc prius longe cognitum fuiſſe: Imo judico uſum Literarum hoc ſenſu fuiſſe ab initio, licet homines in materia ſolida et ad figuras conſervandas apta nondum ſcribebant: qui enim caput nutat, oculo connivet, digitum movet in aëre, &c. (ad mentis cogitata exprimendum) is non minus vere ſcribit, quam qui Literas pingit in Charta, Marmore, vel ære. Ratio cur judicem Charaƈteres extitiſſe ab

initio, eſt quod non minus naturale ſit homini communicare in *Figuris* quam *Sonis:* quorum utrumque dico homini *naturale;* licet ſcribere has vel illas figuras, vel loqui has vel illas voces, fit omnino ad *placitum*. Præterea Characteres *Reales* fuiſſe in uſu ante Characteres *Vocales*, Synenſes et Ægyptios, populos antiquiſſimos teſtes compello.

Sonorum ſimplicium numerus et differentiæ, a diverſo modo aperiendi et claudendi Organa pronunciationis petenda ſunt; quare primo dividi poſſunt Literæ, in *apertas* et *clausas*.

Apertæ principaliores (non enim eſt animus differentias minutiores perſequi) ſunt ſeptem; quarum valor, ordo, et ſoni differentia videantur ſupra. Hæ iterum ſunt *Gutturales* vel *Labiales*. Gutturales ſunt quatuor, quarum pronunciatio gradatim procedit, a ſono maxime aperto *a*; per ſonum paulo contractiorem η; et tertio *e* adhuc contractiorem, et gutture ſtrictiore prolatum; ad quartum *i* ſonum contractiſſimum, et ſtrictiſſimo gutture formatum, ideoque acutiſſimum. Labiales ſunt tres; quas ſic voco quod ſine labiorum ope et motu formari nequeunt. Harum *o* eſt maxime aperta, hoc eſt contractionem labiorum minime poſcit; υ contractiora labia in ipſius formatione requirit; *u* maximam labiorum contractionem et conatum poſtulat.

Quot modis hi ſoni ſimplices coaleſcere poſſunt in dipthongos, non morabor curioſe inquirere: Hoc tantum teneatur, ſex eſſe dipthongos ſonatu et diſtinctu faciles, ni. ai ei oi au eu ou, qui efferri poſſunt continuato ſpiritu, ad modum unius ſimplicis ſoni: et ratio hujus eſt, quia componuntur ex ſonis maxime apertis præcedentibus, et maxime contractis ſequentibus; ideoque facilis eſt cadentia organorum eodem ſpiritu in his formandis.

Literæ clauſis organis formatæ principaliores et omni populo pronunciatu faciles, et quibus ſolis idcirco hic uſurus ſum, ſunt duodecim: Hæ dividuntur in *semiclausas* et perfecte *clausas*.

Literæ *semiclausæ* quæ et *semivocales* appellari poſſunt, ſunt tres; *s r l* in quibus formandis organa oris non clauduntur perfecte, ſed continuatur ſpiritus tranſpiratio per os; et ex varia percuſſione palati per linguæ extremitatem (quæ organum pronunciationis præcipuum eſt) formantur.

S formatur per contactum palati et laterum linguæ, media parte linguæ a contactu abſtinente; per quam tanquam per fiſtulam, ſpiritus ſono ſibilo emittitur. De ſono hujus Literæ audivi virum doctum hoc pecu-

liare obſervantem, quod nequeat efferri ſono *claro*, ſed ad modum *susurri:* quod quidem verum eſt, ſed non de hac litera ſola; nulla enim eſt litera aſpirata ex tribus mutis, quæ ſono claro proferri poteſt. Ut hoc diſtinctius percipiatur, conſulo ut inter pronunciandum diu hæreatur in harum literarum formatione: et ſic obſervabit ingenioſus quilibet, licet altiſſima voce exclamet, proferendo vocem ex his literis et vocalibus conflatam, dum ſonat vocales ſonus erit clarus; ſed cum ad has literas ſonandas pervenitur, ſtatim ſonus clarus vaneſcit in ſuſurrum, *e. g. as with life.*

Sonus *r* eſt fortis vibratio extremitatis linguæ contra palatum; hinc eſt quod qui nervos linguæ habent debiles, non facile formant hunc ſonum.

L, formatur modo contrario quo *S*, extremitate ſcil. linguæ palatum tangente, lateribus vero a contactu abſtinentibus, ut tranſmittatur ſpiritus. Hic notetur: nihil me unquam magis vexavit, quam invenire veram differentiam inter literas *n* et *l;* auribus enim percipiebam ſonos diſtinctiſſimos, at vero in organorum contactu, unde omnem ſonorum differentiam exoriri ſatis ſciebam, vix quidem ac ne vix, per multos dies differentiam ullam obſervare potui; ſaltem quam deſcribere poteram. Verum ex jam dictis et ſtatim dicendis ſatis clare deſcribi poteſt harum literarum differentia; in formatione enim *l* ſpiritus per os tranſmittitur, in *n* per naſum.

Soni perfecte clauſi ſunt novem, qui dupliciter ſubdividi poſſunt; vel primo, ratione diverſitatis organorum quibus formantur; et ſic in tres ternarios numeros dividuntur, *labiales m b p, linguales n d t,* et *gutturales f g k.* Vel ſecundo, diſtingui poſſunt ſecundum diverſitatem ſoni editi in iis formandis; ſecundum quam differentiam ego eas hic diſpoſui, utpote inſtituto meo accommodatiorem; et ſic ſunt vel *Nasales* ſeu *Transpirantes m n f,* vel *Suffocatæ b d g,* vel *Mutæ p t k:* Nam ratione organorum pronunciationis præciſe, tres tantum ſunt literæ perfecte clauſæ; ſed hæ tres clauſuræ multiplicatæ per trinam differentiam ſoni faciunt novem.

Nasales ideo ſic voco, quod dum organa oris clauduntur, continuatur ſonus per emiſſionem ſpiritus per nares; clauſis enim naribus, hæ literæ formari nequeunt. De his tria hic monenda ſunt. Primo ex hac naturali et genuina ſonorum analyſi detegi (vel ſaltem confirmari) literam ſeu ſonum vere ſimplicem dari, quæ vulgo per duas literas diverſorum organ-

orum, ideoque in eadem ſyllaba minime unibilium, abſurde ſcribitur: Hic enim ſonus ex natura rei ipſius, non minus facilis eſt vel in principio vel fine vocis fine alia conſonante, quam aliæ duæ literæ naſales *m* et *n*; licet reſpectu noſtri non ita fit; nam nos nihil facile facimus niſi quod ſæpe facimus. Secundo, cum in vulgaribus noſtris linguis nullum habeamus Characterem ſimplicem ad exprimendum hujus ſoni valorem, ideo mutuatus ſum Characterem *f* ad hunc ſonum ſignificandum. Tertio, propter hanc cauſam Characterem *f* pro dicto ſono ſubſtitui, quia hic mihi propoſitum eſt omnibus modis facilitati conſulere, (quæ etiam cauſa fuit, quod omnes alios ſonos ſimplices rejecerim; quia pauci vel nulli eorum ſunt, qui facile pronunciantur ab omnibus populis, ſed apud varios populos admodum varius eſt eorum uſus) ideoque hunc ſonum, licet perfectiſſimum et diſtinctiſſimum ab aliis; cum tamen a nullo populo cujus literæ ad nos pervenerunt ſit uſitatus, niſi ante ſuffocatum vel mutum ſui organi (et tunc quidem Charactere proprio non ſcribitur; Græci enim per γ αγγιλος; aliæ gentes per *n* ut *languor*, *anger*) ideo inquam, hunc ſonum ex hac lingua ejeci, cujus loco ſubſtitui literam *f*, facilis et diſtincti ſoni. Si tamen aliter viſum fuerit viris doctis, poterit retineri ſonus proprius literæ gutturalis *Transpirantis*, ſeu *Nasalis* ſub Charactere ſoni *f*.

Suffocatæ b d g formantur eadem clauſura organorum qua *Nasales*; ſed ſpiritu magno niſu retento et ſuppreſſo in gutture. Hic notetur literam *g*, ut vulgo in *Georgius* ſonatur, non eſſe literam ſimplicem, ſed compoſitam ex *d* et *sh*, quaſi *dshordshius*.

Literæ *Mutæ* formantur eadem clauſura organorum qua ſupra dictæ; ſed omni interno ſpiritus motu et ſono ceſſante poſt organorum clauſuram factam.

Præter has duodecim conſonantes principales jam enumeratas, omnibus hominibus organa illæſa habentibus pronunciatu faciles, quibuſque ſolis (ut dixi) ideo hic uſurus ſum, alii ſunt ſoni ſimplices ex his orti, ni. ex aſpiratione dictarum *suffocatarum* et *mutarum* oriuntur ſex; *v f* ex *b p*; *th* ut ſonatur in *the* et *tithe*, ex *d*; *th* ut ſonatur in *thrice*, ex *t*; *gh* (qui ſonus eſt germanicus) ex *g*; et χ ex *k*. De his notandum primo, quaſdam harum aſpiratarum, licet duabus characteribus deſcriptas, eſſe tamen revera

ſimplices ſonos non minus quam *f* et *v* quæ unico charactere ſcribuntur. Secundo, Nationes exteræ male accuſant nos Britannos *blæsitatis* dum literas *d* et *t* aſpirate pronunciamus; qui ſoni illis duriſſimi ſunt. Sic populo Anglicano viciſſim peculiare eſt, abhorrere a gutturalibus aſpiratis. Corrumpit etiam, ut plurimum, ſonos *a* et *i*, quaſi *e* et *ai:* non tamen omnino reſpuunt Angli ſonos *a* et *i*, familiares enim ſatis illis ſunt hi ſoni, licet diverſis characteribus notati; *a* enim per *aw* ſcribunt, et *i* per *ee*, ut *law*, *saw*, *peel*, *feel*.

Contigit aliquando verba habere cum curioſo quodam rerum naturalium [cauſas] ſcrutatore, qui cauſam varietatis hujus ſonorum apud diverſos populos, cœli ſolique temperiem affignabat. Non quidem diffiteor cauſas naturales eſſe operativas in ſonorum diverſitate; verum cauſæ proximiores reddi poſſunt, quam regionum temperies, ni. corporis temperamentum, quod ſæpiſſime plus diverſitatis producit in hominibus in eodem loco natis, quam videmus inter alios in diverſis mundi climatibus. Quare hoc certum eſt, cauſas naturales variare ſonos quoad eorum modulationem; hoc eſt, quod ſint graviores, clariores, aſperiores, &c. at vero adſcribere cauſam differentiæ ſonorum, qui ex diſtinctis organorum clauſuris et contactibus oriuntur, vel regionis, vel corporis ipſius temperamento, eſt revera ignorantiam veræ cauſæ differentiarum ſonorum prodere: mihi enim experientia comprobatum eſt, poſſe Anglos gutturales aſpiratas ſatis diſtincte pronunciare, ut etiam alios Populos gutturales linguales. Nulla igitur ratio reddi poteſt, cur Angli averſantur ſonum χ, exteræ nationes vero *th*, quam cur Angli vocant *urbem town*, aliæ Nationes aliis vocibus.

Z eſt *S* ſuffocatum; hoc eſt, differt ab *s* ut *d* a *t* vel *b* a *p*, &c.

Eſt et alius ſonus ſimplex, qui paululum differt ab *s*, qui vulgo ſcribitur *sh:* Hebræi proprio Charactere notant ש qui etiam dupliciter ſonatur, ni. *muto* et *suffocato* ſono; unde oritur duplex litera, cujus ſonus *suffocatus* nobis Britannis non eſt uſitatus, ſed ni fallor Polonis familiaris.

Tota eſſentia literæ *h* conſiſtit in forti ſpiritus impulſu in vocalium prolatione, ſive id fiat ſpirando, ſive reſpirando; et hæc de ſonorum ſimplicium numero et principalioribus differentiis.

Quemadmodum ſoni ſimplices aperti coaleſcunt in unum ſonum continuatum, qui dicitur dipthongus, ſic clauſi ſæpiſſime in unum continuatum

ſonum in eadem ſyllaba coaleſcunt: quare explicatis ſonis ſimplicibus clauſis, quaſdam regulas de earum compoſitione tradam; ni. de principalioribus ſonis Compoſitis, ut monui de dipthongis.

Primo, Hæc eſt Regula certa et univerſalis: Nulla litera unius organi naturaliter præcedere poteſt literam alterius organi, in principio ſyllabæ. Hinc excipiatur *s* quæ ante quamvis aliam in principio ſyllabæ, vel poſt quamvis aliam in fine ſyllabæ ſatis euphonice ſonat, licet in nulla (quod ſciam) lingua, ſuffocatis *b d g* præponatur, quod propterea nec ego hic feci. Raro etiam invenitur ante *r*; Analogia tamen hujus Linguæ coegit me in quibuſdam vocibus componere *sr*: videbam enim ſonum in ſe ſatis eſſe euphonicum et facilem. Lingua etiam Anglica admittit *r* poſt *sh*, ſonum *s* maxime affinem, et quidem multo duriorem, ut *shrewd*, *shrine*. Videbitur fortaſſis *sf* (ubi per *f* jam intelligo gutturalem *nasalem*) ſonus non naturalis: verum ut ſupra demonſtravi *f* ſolitarie ſonari poſſe in principio ſyllabæ, non minus quam *m n*; ſic etiam compoſitio *sf* non minus eſt naturalis, quam *sm sn*.

Secundo, In fine ſyllabæ *Nasales* euphonice valde ſonant ante *suffocatas* vel *mutas* ejuſdem organi; ut *lamb*, *lamp*, *and*, *ant*, *long*, *ink*. Ubi notandum in *long* et *ink* non *n* ſonatur, nec quidem ſonari poteſt, ſed gutturalis *Nasalis*. Durus tamen eſt Germanorum ſonus componentium *Nasalem suffocatam* et *mutam* in eadem ſyllaba; ut *handt*, *landt*.

Tertio, *Semiclausæ r l* bene componuntur in principio ſyllabæ cum *suffocatis* et *mutis*, quæ compoſitio mihi in ſequentibus magni eſt uſus: durius tamen paululum ſonat *l* poſt *d* et *t*, quia eadem fere (ut dictum) clauſura organorum formantur. Et licet analogia hujus linguæ poſtulat ſonum *l* componi cum *d* et *t*, tamen evenit in iſta parte Lexici quæ ſub *d* et *t* eſt, paucas notiones habere proprie dictum *medium* cujus *l* eſt characteriſticum.

Quarto, *r* et *l* in fine ſyllabæ ante quamvis aliam conſonantem bene ſonantur, ſed poſt nullam. Jamque doctrinam de ſonis ſimplicibus cum his obſervationibus abſolvam.

Primo, Omnium Linguarum Grammaticæ in Literarum numero vel defectivæ ſunt, vel redundantes; quoſdam enim ſonos complexos unico charactere, alios vero ſonos vere ſimplices duobus characteribus notant.

Secundo, Nulla ante-hac ratio *ordinis* literarum reddita eſt; ſed non minus fortuitus eſt *ordo* literarum quam inſtitutio vocum.

Tertio, Ex convenientia quam videmus reſpectu methodi in omnibus Alphabetis, manifeſtum eſt literarum Inventionem unicum Autorem habuiſſe; Literæ enim *A B* primum locum obtinent in Alphabetis omnium Linguarum. Quod ordo ſequentium Literarum variet, ratio eſt, partim quod quædam literæ poſtea additæ ſunt poſt primam inventionem; quædam etiam a quibuſdam Gentibus eliminatæ ſunt cum quilibet populus literas recipiens Linguæ ſuæ adaptavit: aliæ ſunt variationes in numero et ſerie literarum apud varias nationes ex aliis accidentibus, quarum cauſas reddere eſt difficile.

Quarto, Ex ſonorum Analyſi hic tradita ſatis intellecta, ſtatim ſequitur eorum recordatio.

Quinto, Priuſquam caput hoc de ſonis abſolvero, docebo ex ſupra dicta analyſi Artem (quod quibuſdam forte non ingratum erit) tranſmutandi voces cujuſvis Linguæ in alias diverſiſſimas, et tamen ſermo ſic tranſmutatus eandem gratiam et euphoniam retinebit; adeo ut facillime diſcerni poſſet, qua lingua quis utatur, licet ſenſus verborum maneat omnino occultus, etiam ab iſtarum linguarum peritis. Ars breviter hæc eſt. Fiat commutatio labialium *m b p* cum dentalibus *n d t;* quod etiam fiat in earum aſpiratis; et commutatio *g* cum *k*, et *r* cum *l;* exemplum,

Pipile pu tapuræ legudams sud peknime thaki.
Syrthesplen pemue Nusam nebipalis athema, i. e.
Tityre tu patulæ, &c.

Nemo linguæ Latinæ gnarus, dum audit has voces recte prolatas, qui non ſatis percipiet eas eſſe Latinas, licet ita inverſas ut nihil intelligat ex iis.

CAP. II.

DE CHARACTERIBUS.

QUEMADMODUM ſcientia transfertur a homine ad hominem per organum auris, mediantibus ſonis, ſic etiam per oculi organum mediantibus figuris. Poteſt fieri communicatio per reliquos ſenſus; ſed tardius, ideoque ad noſtrum inſtitutum nihil pertinet, qui medium communicationis breviſſimum et rationi maxime conſentaneum quærimus. Si comparatio inſtituatur inter ſigna *vocalia* et *scripta*, communicatio in *sonis* multo eſt expeditior inter præſentes; ſed hanc vincit communicatio per *figuras*, quod, cum *vox perit litera scripta manet.* Per figuras enim communicari poteſt inter abſentes, et ad quamvis diſtantiam; et quod præcipuum eſt, rerum memoriam præſervant.

Hic diligenter eſt advertendum quod eadem ſit Ars ſignorum *audibilium* et *visibilium:* quot modis enim componi poſſunt (ſecundum regulas Artis) figuræ ſimplices, et rebus ſignificandis imponi, tot modis et eadem prorſus Arte, componi poſſunt et variari ſoni ſimplices. Veritatem hanc ulterius ſic demonſtro. Ubi Ars ibi Methodus, ubi methodus ibi numerus, ubi numerus ibi aptitudo, ut res numeratæ ſecundum ordinem numericum vel figuris vel vocibus ſignificentur: quod ſatis eſt evidens ex ſignis numericis, a me in hoc opere traditis. Hoc noto propter imperitiam eorum (pro quo errore etiam homines doctí ſunt increpandi) qui Artem Signorum in *mutis figuris*, hoc eſt *Characterem Universalem* (ut vulgo appellari ſolet) mirantur, ſed de lingua nova audire non ferunt: cum tamen nemo Artem communicandi per *figuras* tradere poteſt, quin eadem *Characteris* præcepta ſint eadem ratione ſonis applicabilia. Hoc quidem meipſum diu latuit, poſtquam detexerim hanc Artem in figuris: et ſicut incredibile videbatur ſuſceptum meum primum de Charactere muto, non ſolum vulgo ſed plurimis viris doctis; hoc vero ſecundum adhuc magis fidem ſuperabat, etiam multorum quibus abunde ſatisfactum erat de Arte figurarum.

Quamobrem hoc non me adeo movet, quod pauci apprehendant Artem *Sonorum* et *Figurarum* esse omnino eandem; est enim hoc Artis Mysterium satis arduum. Sed admodum moleste fero, quod videam omnes fere homines una voce *Characterem Realem* et *Mutum* expetentes, dum vero de *Lingua* audiunt, ab hac ut a vano et superfluo Commento abhorrent; quasi Linguarum confusio nullo alio pacto esset reparabilis, nisi exscindendo omnium hominum *Linguas*, ut solis *mutis Characteribus* fieret communicatio. An non qui legit hunc librum, habet me ipsi communicantem animi mei sensa in Charactere *Muto;* non enim audit meas *voces?* Sed dicet, hic Character est *effabilis*. Verum quidem est. An propterea pejor et minus desiderabilis? An voces aures offendunt? Si in signis inartificialibus (qualia sunt voces omnium Linguarum) detur resolutio *sonorum* in *figuras*, et *figurarum* rursus in *sonos*, quæ Ars est egregia et utilissima, quanto magis debet hæc perfectio reperiri in Signis Artificialibus? Rogarem cui fini vel bono expetitur Character Realis *Mutus?* Si dicatur ad communicandum cum hominibus diversæ *Linguæ*, consentio. Et ego hanc Artem hic doceo, longe compendiosius et facilius quam unquam cogitatum erat ab iis qui eam inter Literaturæ desiderata numerarunt, et quam est possibile ut fiat in tali *Charactere* qui in *sonos* non sit resolubilis. At dices, hic Linguam doceo. Resp. Si alicui non placuerit communicare per hanc artem in *vocibus*, compescat *Linguam*, et obturet *Aures*, et sic communicare poterit in solis *mutis figuris:* ego enim nullam aliam differentiam agnosco inter quemvis *Characterem* (Arte) excogitabilem ad communicandum, et *Linguam*.

Ratio autem quod homines adeo præjudiciis laborant contra *Linguam* novam, et *Characterem mutum* mirantur, est primo partim propter famam *Characteris Universalis* seu *Realis*, quo nomine indigitata fuit hæc Ars ab iis qui de Literaturæ desideratis tractarunt. Secunda hujus rei ratio (quæ etiam reddi potest ratio cur viri docti nihil vel parum dixerunt de Lingua Philosophica, desiderata Artis enumerantes) est propter ignorationem hujus egregiæ veritatis; quod quicquid præstari potest in *figuris*, idem eadem Arte præstari potest in *sonis*, ut supra ostensum est. Tertio, vulgus plus *novitatem* et *Raritatem* Artium admirari solet, quam *veritatem:* communi-

CAP. I.

DE PRIMIS SIGNORUM ELEMENTIS, SPECIATIM VERO DE SONIS SIMPLICIBUS.

ARTEM primam maximeque neceſſariam, *Artem* ſcil. *Signorum*, hucuſque negleƈtam, alias vero (quantum ſine hac poterant) ingenioſe et laborioſe excultas, inertiæne genus humanum accuſabo? Anne potius Numinis ſpeciali Decreto, Artem hanc tantas in rebus humanis mutationes portendentem, in ultima Mundi tempora reſervante, excuſabo? Artem igitur hanc ab aliis non inventam, mihi vero vere repertam patefaƈturus, a primis ejus Elementis *Literis* ſc. exordium ducam; earumque Philoſophiam paucis et perſpicuetradam.

Optime meruit de genere humano, qui primus docuit voces humanas in quoſdam ſimpliciſſimos primos et irreſolubiles ſonos reſolvere; quam Inventionem certiſſimum eſt præceſſiſſe Inventionem Literarum Alphabeticarum, quam nos vulgo miramur; hæ enim nihil ſunt aliud quam Signa Signorum, id eſt ſonorum, adeoque illis neceſſario poſteriora. Non quidem dico hanc Inventionem omnem Literarum uſum præceſſiſſe; nam non minus certum videtur uſum Chara&terum, quatenus Rerum ipſarum et mentis Conceptuum immediate ſignificativi ſunt, ante hanc prius longe cognitum fuiſſe: Imo judico uſum Literarum hoc ſenſu fuiſſe ab initio, licet homines in materia ſolida et ad figuras conſervandas apta nondum ſcribebant: qui enim caput nutat, oculo connivet, digitum movet in aëre, &c. (ad mentis cogitata exprimendum) is non minus vere ſcribit, quam qui Literas pingit in Charta, Marmore, vel ære. Ratio cur judicem Chara&teres extitiſſe ab

initio, eſt quod non minus naturale ſit homini communicare in *Figuris* quam *Sonis:* quorum utrumque dico homini *naturale;* licet ſcribere has vel illas figuras, vel loqui has vel illas voces, ſit omnino ad *placitum*. Præterea Characteres *Reales* fuiſſe in uſu ante Characteres *Vocales*, Synenſes et Ægyptios, populos antiquiſſimos teſtes compello.

Sonorum ſimplicium numerus et differentiæ, a diverſo modo aperiendi et claudendi Organa pronunciationis petenda ſunt; quare primo dividi poſſunt Literæ, in *apertas* et *clausas*.

Apertæ principaliores (non enim eſt animus differentias minutiores perſequi) ſunt ſeptem; quarum valor, ordo, et ſoni differentia videantur ſupra. Hæ iterum ſunt *Gutturales* vel *Labiales*. Gutturales ſunt quatuor, quarum pronunciatio gradatim procedit, a ſono maxime aperto *a*; per ſonum paulo contractiorem η; et tertio *e* adhuc contractiorem, et gutture ſtrictiore prolatum; ad quartum *i* ſonum contractiſſimum, et ſtrictiſſimo gutture formatum, ideoque acutiſſimum. Labiales ſunt tres; quas ſic voco quod ſine labiorum ope et motu formari nequeunt. Harum *o* eſt maxime aperta, hoc eſt contractionem labiorum minime poſcit; υ contractiora labia in ipſius formatione requirit; *u* maximam labiorum contractionem et conatum poſtulat.

Quot modis hi ſoni ſimplices coaleſcere poſſunt in dipthongos, non morabor curioſe inquirere: Hoc tantum teneatur, ſex eſſe dipthongos ſonatu et diſtinctu faciles, ni. ai ei oi au eu ou, qui efferri poſſunt continuato ſpiritu, ad modum unius ſimplicis ſoni: et ratio hujus eſt, quia componuntur ex ſonis maxime apertis præcedentibus, et maxime contractis ſequentibus; ideoque facilis eſt cadentia organorum eodem ſpiritu in his formandis.

Literæ clauſis organis formatæ principaliores et omni populo pronunciatu faciles, et quibus ſolis idcirco hic uſurus ſum, ſunt duodecim: Hæ dividuntur in *semiclausas* et perfecte *clausas*.

Literæ *semiclausæ* quæ et *semivocales* appellari poſſunt, ſunt tres; *s r l* in quibus formandis organa oris non clauduntur perfecte, ſed continuatur ſpiritus tranſpiratio per os; et ex varia percuſſione palati per linguæ extremitatem (quæ organum pronunciationis præcipuum eſt) formantur.

S formatur per contactum palati et laterum linguæ, media parte linguæ a contactu abſtinente; per quam tanquam per fiſtulam, ſpiritus ſono ſibilo emittitur. De ſono hujus Literæ audivi virum doctum hoc pecu-

liare obſervantem, quod nequeat efferri ſono *claro*, ſed ad modum *susurri:* quod quidem verum eſt, ſed non de hac litera ſola; nulla enim eſt litera aſpirata ex tribus mutis, quæ ſono claro proferri poteſt. Ut hoc diſtinctius percipiatur, conſulo ut inter pronunciandum diu hæreatur in harum literarum formatione: et ſic obſervabit ingenioſus quilibet, licet altiſſima voce exclamet, proferendo vocem ex his literis et vocalibus conflatam, dum ſonat vocales ſonus erit clarus; ſed cum ad has literas ſonandas pervenitur, ſtatim ſonus clarus vaneſcit in ſuſurrum, *e. g. as with life.*

Sonus *r* eſt fortis vibratio extremitatis linguæ contra palatum; hinc eſt quod qui nervos linguæ habent debiles, non facile formant hunc ſonum.

L, formatur modo contrario quo *S*, extremitate ſcil. linguæ palatum tangente, lateribus vero a contactu abſtinentibus, ut tranſmittatur ſpiritus. Hic notetur: nihil me unquam magis vexavit, quam invenire veram differentiam inter literas *n* et *l;* auribus enim percipiebam ſonos diſtinctiſſimos, at vero in organorum contactu, unde omnem ſonorum differentiam exoriri ſatis ſciebam, vix quidem ac ne vix, per multos dies differentiam ullam obſervare potui; ſaltem quam deſcribere poteram. Verum ex jam dictis et ſtatim dicendis ſatis clare deſcribi poteſt harum literarum differentia; in formatione enim *l* ſpiritus per os tranſmittitur, in *n* per naſum.

Soni perfecte clauſi ſunt novem, qui dupliciter ſubdividi poſſunt; vel primo, ratione diverſitatis organorum quibus formantur; et ſic in tres ternarios numeros dividuntur, *labiales m b p, linguales n d t,* et *gutturales f g k.* Vel ſecundo, diſtingui poſſunt ſecundum diverſitatem ſoni editi in iis formandis; ſecundum quam differentiam ego eas hic diſpoſui, utpote inſtituto meo accommodatiorem; et ſic ſunt vel *Nasales* ſeu *Transpirantes m n f,* vel *Suffocatæ b d g,* vel *Mutæ p t k:* Nam ratione organorum pronunciationis præciſe, tres tantum ſunt literæ perfecte clauſæ; ſed hæ tres clauſuræ multiplicatæ per trinam differentiam ſoni faciunt novem.

Nasales ideo ſic voco, quod dum organa oris clauduntur, continuatur ſonus per emiſſionem ſpiritus per nares; clauſis enim naribus, hæ literæ formari nequeunt. De his tria hic monenda ſunt. Primo ex hac naturali et genuina ſonorum analyſi detegi (vel ſaltem confirmari) literam ſeu ſonum vere ſimplicem dari, quæ vulgo per duas literas diverſorum organ-

orum, ideoque in eadem ſyllaba minime unibilium, abſurde ſcribitur: Hic enim ſonus ex natura rei ipſius, non minus facilis eſt vel in principio vel fine vocis fine alia conſonante, quam aliæ duæ literæ naſales *m* et *n*; licet reſpectu noſtri non ita fit; nam nos nihil facile facimus niſi quod ſæpe facimus. Secundo, cum in vulgaribus noſtris linguis nullum habeamus Characterem ſimplicem ad exprimendum hujus ſoni valorem, ideo mutuatus ſum Characterem *f* ad hunc ſonum ſignificandum. Tertio, propter hanc cauſam Characterem *f* pro dicto ſono ſubſtitui, quia hic mihi propoſitum eſt omnibus modis facilitati conſulere, (quæ etiam cauſa fuit, quod omnes alios ſonos ſimplices rejecerim; quia pauci vel nulli eorum ſunt, qui facile pronunciantur ab omnibus populis, ſed apud varios populos admodum varius eſt eorum uſus) ideoque hunc ſonum, licet perfectiſſimum et diſtinctiſſimum ab aliis; cum tamen a nullo populo cujus literæ ad nos pervenerunt ſit uſitatus, niſi ante ſuffocatum vel mutum ſui organi (et tunc quidem Charactere proprio non ſcribitur; Græci enim per γ αγγιλος; aliæ gentes per *n* ut *languor*, *anger*) ideo inquam, hunc ſonum ex hac lingua ejeci, cujus loco ſubſtitui literam *f*, facilis et diſtincti ſoni. Si tamen aliter viſum fuerit viris doctis, poterit retineri ſonus proprius literæ gutturalis *Transpirantis*, ſeu *Nasalis* ſub Charactere ſoni *f*.

Suffocatæ b d g formantur eadem clauſura organorum qua *Nasales*; ſed ſpiritu magno niſu retento et ſuppreſſo in gutture. Hic notetur literam *g*, ut vulgo in *Georgius* ſonatur, non eſſe literam ſimplicem, ſed compoſitam ex *d* et *sh*, quaſi *dshordshius*.

Literæ *Mutæ* formantur eadem clauſura organorum qua ſupra dictæ; ſed omni interno ſpiritus motu et ſono ceſſante poſt organorum clauſuram factam.

Præter has duodecim conſonantes principales jam enumeratas, omnibus hominibus organa illæſa habentibus pronunciatu faciles, quibuſque ſolis (ut dixi) ideo hic uſurus ſum, alii ſunt ſoni ſimplices ex his orti, ni. ex aſpiratione dictarum *suffocatarum* et *mutarum* oriuntur ſex; *v f* ex *b p*; *th* ut ſonatur in *the* et *tithe*, ex *d*; *th* ut ſonatur in *thrice*, ex *t*; *gh* (qui ſonus eſt germanicus) ex *g*; et χ ex *k*. De his notandum primo, quaſdam harum aſpiratarum, licet duabus characteribus deſcriptas, eſſe tamen revera

ſimplices ſonos non minus quam *f* et *v* quæ unico charactere ſcribuntur. Secundo, Nationes exteræ male accuſant nos Britannos *blæsitatis* dum literas *d* et *t* aſpirate pronunciamus; qui ſoni illis duriſſimi ſunt. Sic populo Anglicano viciſſim peculiare eſt, abhorrere a gutturalibus aſpiratis. Corrumpit etiam, ut plurimum, ſonos *a* et *i*, quaſi *e* et *ai:* non tamen omnino reſpuunt Angli ſonos *a* et *i*, familiares enim ſatis illis ſunt hi ſoni, licet diverſis characteribus notati; *a* enim per *aw* ſcribunt, et *i* per *ee*, ut *law*, *saw*, *peel*, *feel*.

Contigit aliquando verba habere cum curioſo quodam rerum naturalium [cauſas] ſcrutatore, qui cauſam varietatis hujus ſonorum apud diverſos populos, cœli ſolique temperiem aſſignabat. Non quidem diffiteor cauſas naturales eſſe operativas in ſonorum diverſitate; verum cauſæ proximiores reddi poſſunt, quam regionum temperies, ni. corporis temperamentum, quod ſæpiſſime plus diverſitatis producit in hominibus in eodem loco natis, quam videmus inter alios in diverſis mundi climatibus. Quare hoc certum eſt, cauſas naturales variare ſonos quoad eorum modulationem; hoc eſt, quod ſint graviores, clariores, aſperiores, &c. at vero adſcribere cauſam differentiæ ſonorum, qui ex diſtinctis organorum clauſuris et contactibus oriuntur, vel regionis, vel corporis ipſius temperamento, eſt revera ignorantiam veræ cauſæ differentiarum ſonorum prodere: mihi enim experientia comprobatum eſt, poſſe Anglos gutturales aſpiratas ſatis diſtincte pronunciare, ut etiam alios Populos gutturales linguales. Nulla igitur ratio reddi poteſt, cur Angli averſantur ſonum χ, exteræ nationes vero *th*, quam cur Angli vocant *urbem town*, aliæ Nationes aliis vocibus.

Z eſt *S* ſuffocatum; hoc eſt, differt ab *s* ut *d* a *t* vel *b* a *p*, &c.

Eſt et alius ſonus ſimplex, qui paululum differt ab *s*, qui vulgo ſcribitur *sh:* Hebræi proprio Charactere notant ש qui etiam dupliciter ſonatur, ni. *muto* et *suffocato* ſono; unde oritur duplex litera, cujus ſonus *suffocatus* nobis Britannis non eſt uſitatus, ſed ni fallor Polonis familiaris.

Tota eſſentia literæ *h* conſiſtit in forti ſpiritus impulſu in vocalium prolatione, ſive id fiat ſpirando, ſive reſpirando; et hæc de ſonorum ſimplicium numero et principalioribus differentiis.

Quemadmodum ſoni ſimplices aperti coaleſcunt in unum ſonum continuatum, qui dicitur dipthongus, ſic clauſi ſæpiſſime in unum continuatum

ſonum in eadem ſyllaba coaleſcunt: quare explicatis ſonis ſimplicibus clauſis, quaſdam regulas de earum compoſitione tradam; ni. de principalioribus ſonis Compoſitis, ut monui de dipthongis.

Primo, Hæc eſt Regula certa et univerſalis: Nulla litera unius organi naturaliter præcedere poteſt literam alterius organi, in principio ſyllabæ. Hinc excipiatur *s* quæ ante quamvis aliam in principio ſyllabæ, vel poſt quamvis aliam in fine ſyllabæ ſatis euphonice ſonat, licet in nulla (quod ſciam) lingua, ſuffocatis *b d g* præponatur, quod propterea nec ego hic feci. Raro etiam invenitur ante *r*; Analogia tamen hujus Linguæ coegit me in quibuſdam vocibus componere *sr*: videbam enim ſonum in ſe ſatis eſſe euphonicum et facilem. Lingua etiam Anglica admittit *r* poſt *sh*, ſonum *s* maxime affinem, et quidem multo duriorem, ut *shrewd*, *shrine*. Videbitur fortaſſis *sf* (ubi per *f* jam intelligo gutturalem *nasalem*) ſonus non naturalis: verum ut ſupra demonſtravi *f* ſolitarie ſonari poſſe in principio ſyllabæ, non minus quam *m n*; ſic etiam compoſitio *sf* non minus eſt naturalis, quam *sm sn*.

Secundo, In fine ſyllabæ *Nasales* euphonice valde ſonant ante *suffocatas* vel *mutas* ejuſdem organi; ut *lamb*, *lamp*, *and*, *ant*, *long*, *ink*. Ubi notandum in *long* et *ink* non *n* ſonatur, nec quidem ſonari poteſt, ſed gutturalis *Nasalis*. Durus tamen eſt Germanorum ſonus componentium *Nasalem suffocatam* et *mutam* in eadem ſyllaba; ut *handt*, *landt*.

Tertio, *Semiclausæ r l* bene componuntur in principio ſyllabæ cum *suffocatis* et *mutis*, quæ compoſitio mihi in ſequentibus magni eſt uſus: durius tamen paululum ſonat *l* poſt *d* et *t*, quia eadem fere (ut dictum) clauſura organorum formantur. Et licet analogia hujus linguæ poſtulat ſonum *l* componi cum *d* et *t*, tamen evenit in iſta parte Lexici quæ ſub *d* et *t* eſt, paucas notiones habere proprie dictum *medium* cujus *l* eſt characteriſticum.

Quarto, *r* et *l* in fine ſyllabæ ante quamvis aliam conſonantem bene ſonantur, ſed poſt nullam. Jamque doctrinam de ſonis ſimplicibus cum his obſervationibus abſolvam.

Primo, Omnium Linguarum Grammaticæ in Literarum numero vel defectivæ ſunt, vel redundantes; quoſdam enim ſonos complexos unico charactere, alios vero ſonos vere ſimplices duobus characteribus notant.

Secundo, Nulla ante-hac ratio *ordinis* literarum reddita eſt; ſed non minus fortuitus eſt *ordo* literarum quam inſtitutio vocum.

Tertio, Ex convenientia quam videmus reſpectu methodi in omnibus Alphabetis, manifeſtum eſt literarum Inventionem unicum Autorem habuiſſe; Literæ enim *A B* primum locum obtinent in Alphabetis omnium Linguarum. Quod ordo ſequentium Literarum variet, ratio eſt, partim quod quædam literæ poſtea additæ ſunt poſt primam inventionem; quædam etiam a quibuſdam Gentibus eliminatæ ſunt cum quilibet populus literas recipiens Linguæ ſuæ adaptavit: aliæ ſunt variationes in numero et ſerie literarum apud varias nationes ex aliis accidentibus, quarum cauſas reddere eſt difficile.

Quarto, Ex ſonorum Analyſi hic tradita ſatis intellecta, ſtatim ſequitur eorum recordatio.

Quinto, Priuſquam caput hoc de ſonis abſolvero, docebo ex ſupra dicta analyſi Artem (quod quibuſdam forte non ingratum erit) tranſmutandi voces cujuſvis Linguæ in alias diverſiſſimas, et tamen ſermo ſic tranſmutatus eandem gratiam et euphoniam retinebit; adeo ut facillime diſcerni poſſet, qua lingua quis utatur, licet ſenſus verborum maneat omnino occultus, etiam ab iſtarum linguarum peritis. Ars breviter hæc eſt. Fiat commutatio labialium *m b p* cum dentalibus *n d t;* quod etiam fiat in earum aſpiratis; et commutatio *g* cum *k*, et *r* cum *l;* exemplum,

Pipile pu tapuræ legudams sud peknime thaki.
Syrthesplen pemue Nusam nebipalis athema, i. e.
Tityre tu patulæ, &c.

Nemo linguæ Latinæ gnarus, dum audit has voces recte prolatas, qui non ſatis percipiet eas eſſe Latinas, licet ita inverſas ut nihil intelligat ex iis.

CAP. II.

DE CHARACTERIBUS.

QUEMADMODUM ſcientia transfertur a homine ad hominem per organum auris, mediantibus ſonis, ſic etiam per oculi organum mediantibus figuris. Poteſt fieri communicatio per reliquos ſenſus; ſed tardius, ideoque ad noſtrum inſtitutum nihil pertinet, qui medium communicationis breviſſimum et rationi maxime conſentaneum quærimus. Si comparatio inſtituatur inter ſigna *vocalia* et *scripta*, communicatio in *sonis* multo eſt expeditior inter præſentes; ſed hanc vincit communicatio per *figuras*, quod, cum *vox perit litera scripta manet.* Per figuras enim communicari poteſt inter abſentes, et ad quamvis diſtantiam; et quod præcipuum eſt, rerum memoriam præſervant.

Hic diligenter eſt advertendum quod eadem ſit Ars ſignorum *audibilium* et *visibilium:* quot modis enim componi poſſunt (ſecundum regulas Artis) figuræ ſimplices, et rebus ſignificandis imponi, tot modis et eadem prorſus Arte, componi poſſunt et variari ſoni ſimplices. Veritatem hanc ulterius ſic demonſtro. Ubi Ars ibi Methodus, ubi methodus ibi numerus, ubi numerus ibi aptitudo, ut res numeratæ ſecundum ordinem numericum vel figuris vel vocibus ſignificentur: quod ſatis eſt evidens ex ſignis numericis, a me in hoc opere traditis. Hoc noto propter imperitiam eorum (pro quo errore etiam homines doctí ſunt increpandi) qui Artem Signorum in *mutis figuris*, hoc eſt *Characterem Universalem* (ut vulgo appellari ſolet) mirantur, ſed de lingua nova audire non ferunt: cum tamen nemo Artem communicandi per *figuras* tradere poteſt, quin eadem *Characteris* præcepta ſint eadem ratione ſonis applicabilia. Hoc quidem meipſum diu latuit, poſtquam detexerim hanc Artem in figuris: et ſicut incredibile videbatur ſuſceptum meum primum de Charactere muto, non ſolum vulgo ſed plurimis viris doctis; hoc vero ſecundum adhuc magis fidem ſuperabat, etiam multorum quibus abunde ſatisfactum erat de Arte figurarum.

Quamobrem hoc non me adeo movet, quod pauci apprehendant Artem *Sonorum* et *Figurarum* esse omnino eandem; est enim hoc Artis Mysterium satis arduum. Sed admodum moleste fero, quod videam omnes fere homines una voce *Characterem Realem* et *Mutum* expetentes, dum vero de *Lingua* audiunt, ab hac ut a vano et superfluo Commento abhorrent; quasi Linguarum confusio nullo alio pacto esset reparabilis, nisi exscindendo omnium hominum *Linguas*, ut solis *mutis Characteribus* fieret communicatio. An non qui legit hunc librum, habet me ipsi communicantem animi mei sensa in Charactere *Muto;* non enim audit meas *voces?* Sed dicet, hic Character est *effabilis*. Verum quidem est. An propterea pejor et minus desiderabilis? An voces aures offendunt? Si in signis inartificialibus (qualia sunt voces omnium Linguarum) detur resolutio *sonorum* in *figuras*, et *figurarum* rursus in *sonos*, quæ Ars est egregia et utilissima, quanto magis debet hæc perfectio reperiri in Signis Artificialibus? Rogarem cui fini vel bono expetitur Character Realis *Mutus?* Si dicatur ad communicandum cum hominibus diversæ *Linguæ*, consentio. Et ego hanc Artem hic doceo, longe compendiosius et facilius quam unquam cogitatum erat ab iis qui eam inter Literaturæ desiderata numerarunt, et quam est possibile ut fiat in tali *Charactere* qui in *sonos* non sit resolubilis. At dices, hic Linguam doceo. Resp. Si alicui non placuerit communicare per hanc artem in *vocibus*, compescat *Linguam*, et obturet *Aures*, et sic communicare poterit in solis *mutis figuris:* ego enim nullam aliam differentiam agnosco inter quemvis *Characterem* (Arte) excogitabilem ad communicandum, et *Linguam*.

Ratio autem quod homines adeo præjudiciis laborant contra *Linguam* novam, et *Characterem mutum* mirantur, est primo partim propter famam *Characteris Universalis* seu *Realis*, quo nomine indigitata fuit hæc Ars ab iis qui de Literaturæ desideratis tractarunt. Secunda hujus rei ratio (quæ etiam reddi potest ratio cur viri docti nihil vel parum dixerunt de Lingua Philosophica, desiderata Artis enumerantes) est propter ignorationem hujus egregiæ veritatis; quod quicquid præstari potest in *figuris*, idem eadem Arte præstari potest in *sonis*, ut supra ostensum est. Tertio, vulgus plus *novitatem* et *Raritatem* Artium admirari solet, quam *veritatem:* communi-

care autem per ſigna mere *muta*, eſt quid novum et rarum; per *figuras* in *sonos* reſolubiles eſt ordinarium.

Suadebant mihi Rei Literariæ amici et etiam mei, Artem hanc primo in *Mutis Characteribus* exhibere, *Linguam* reticendo; quo hominum curioſitati, ex rei omnimoda novitate magis placerem, atque ſic ipſos ad ejus ſtudium facilius allicerem. Verum hic non videbatur mihi bonus-dolus, propter hanc rationem. Certum quidem eſt tantum eſſe hominis *curiositatem*, ut ad res *novas* et *raras*, quodam quaſi curioſitatis ardore et flamma omnes advolent: verum non minus certum eſt, *faſtidium* quoddam occupare mentes humanas poſt viſas res *novas* et *extraordinarias*, niſi *usus* aliquis in illis percipiatur. At vero in iis rebus, quarum *usus* ipſas plus commendat quam *novitas*, licet homines tanto impetu in illas non ferantur, attamen cum *usus* ſit bonum *permanens* et *perpetuum*, *novitas* vero cito *transiens*, ſi non tam avide eas ampleſtantur, amplexas tamen majori cum voluptate retinent. In duobus autem demonſtro uſum *Linguæ*, id eſt facilitatem communicationis, majorem eſſe quam ſi in ſolo *muto Charactere* hanc Artem patefeciſſem. Primo, Nulla ſubſidia mnemonica haberi poterant ad Characteres Radicales memoriæ imprimendos, quæ hic valde memoriam adjuvant. Secundo, In *Charactere* ſolo patefaciendo oportebat novas *figuras* formare, quæ licet paucæ admodum fuerant, et eadem Arte unibiles ad unicum perfectum Characterem conſtituendum, qua hic literæ ad unam vocem faciendam, tamen aliquid oneris memoriæ neceſſario ſecum attuliſſent: hic vero, retinentur *Characteres* prius noti omnibus Europæ populis.

Cum igitur (ut dictum) Ars *Characteris* et *Sonorum* eadem ſit, omnino par erat et rationi conſentaneum, ut quod facilius erat primo proponeretur: qui enim *Linguæ* uſum prius calluerit, poſſum illum *Characteris* Artem ſpatio unius horæ docere. Quare cum ex hac Arte *usum* vere intendam, hac Methodo Docendi uſus ſum, utpote fini meo maxime accommodato; ideoque impreſentiarum de *Characteris* Arte nihil plus addam, niſi quod, ſicut delectum feci *sonorum simplicissimorum* et maxime euphonicorum, ſic etiam *Characteres* erunt *simplicissimi* et figuræ pulchræ et uniformes: nullæ erunt caudæ dependentes, nulli apices eminentes.

CAP. III.

DE RERUM SERIE PRÆDICAMENTALI.

Absoluta Doctrina de primis Signorum Elementis, quantum præsentis Instituti ratio postulabat, et brevitas finebat, priusquam accedam ad *signa integra*, ex his componendum, *rebusque* ipsis imponendum, necessarium erit *Rerum* ipsarum naturas paululum introspicere: hoc enim est malum, cui remedium quærimus in aliis Linguis, quod prima nomina Rerum omnino fortuito, et sine ullo consilio vel respectu habito ad res ipsas pro quibus supponuntur, sint imposita. Cum enim *Signa* a nobis pro *Rebus* ipsis supponantur, omnino rationi consentaneum est, ut Ars *Signorum* Artem *Rerum* sequatur. Et sicut judico *Metaphysicam* et *Logicam* unicam tantum constituere Artem, sic *Grammatica* non aliter vel plus differt ab his, quam *Signum* a *Signato;* cumque hæc correlata sint, omnino eorum eadem debet esse scientia. Quare, qui cum Ratione *Nomina Rebus* imponere velit, primo oportet in Chaos istud Mundi Idealis in animo existentis, per quasi creationem Logicam, formam, pulchritudinem, et ordinem introducere; quo facto facile erit ejus partes Nominibus aptis appellare. Sicut enim manus pictoris in sculpendis Imaginibus, per internam Mentis Ideam ex objecto extrinsecus viso genitam, regitur, sic Grammaticus, secundum Ideas et Regulas Logicas a Rerum ipsarum natura extrinsecus existentium petitas, Nomina illis imponere debet. Hæc autem ordinata Series Rerum vulgo dici solet *Prædicamentum:* De quo in genere pauca hic dicenda sunt.

Opinio est quorundam hujus Sæculi Scriptorum, qui in quibusdam Philosophiæ partibus Inventores, in omnibus vero Reformatores se jactant, nullum esse usum *Doctrinæ prædicamentalis;* hoc est revera, strictam Methodum in Artibus docendis non esse necessariam: quo nihil absurdius et Philosopho indignius doceri potest. Quo enim tendunt omnium Philosophorum conatus in variis Philosophiæ partibus, nisi eo, ut Rerum naturas aperiant, differentias et convenientias scrutando, sicque, Methodo et ordine

inter ſe collocando et diſponendo? Quod poſtquam præſtitum fuerit in particularibus Scientiis et Artibus, tunc officium eſt Logici, has ſparſas Philoſophiæ partes in inferioribus facultatibus ab aliis tractatas colligere, eaſque legitima ſubordinatione in unum Syſtema componere; quod recte appellari poteſt *Prædicamentum*, ſeu *Rerum* omnium *series* ordinata. Non mirum eſt igitur hos Autores in tam fædos errores fuiſſe lapſos, dum ſeriem prædicamentalem revera inutilem, nobis obtrudere velint. Quis Philoſophus a riſu continebit, cum audiverit duo eſſe Summa genera Rerum, *Corpus* ſcil. et *Non Corpus*. Dicerem hos homines *Manichæos*, niſi ſe *Saducæos* aperte profiterentur. Solent hi Terminis Artis, et vocibus ad res ſignificandas a ſenſu et corporeo contactu remotas impoſitis, ut abſurdis et inſignificantibus irridere; cum tamen nulla detur vox magis abſurda et inſignificans, quam *non-corpus* quæ illis ſummum Genus conſtituit. Rogarem hos, quid illis ſignificat hæc vox *Deus*? Certe, niſi ſibi aperte contradicant, eſt vox *absurda* et *insignificans*; nullo enim corporeo contactu, ipſis fatentibus, ad naturam Divinam perveniri poteſt.

Quandoquidem probabile admodum ſit, Libellum hunc ad multorum hominum doctorum manus perventurum, ideo placuit hic paucis inſerere Rationes, propter quas ſecluſa fide ex Dei Revelatione, his duabus Maximis (et quidem mihi aliarum omnium primis) veritatibus ipſe aſſentiam. 1. Eſſe *Deum*. 2. *Animam* Humanam eſſe *Immortalem*. Hocque eo libentius facio, quod videam maximam audaciam Mortalitatis aſſertorum hoc fermento plurimos corrupiſſe; et quoſdam Autores Magni Nominis, hoc Argumentum leviter admodum tractaſſe.

Primo, præter naturæ vocem in omnibus hominibus Numen ſuſpicientem et invocantem, ulterius ſic colligo eſſe Deum. Eſſe Cauſam primam eſt prima veritas; ergo eſt prima veritas eſſe Deum: *Causa* enim *prima* et *Deus* mihi idem ſignificant. Verum

Secundo, *Animam* Humanam eſſe *Immortalem*, quod magis dubitatur et apertius contradicitur a multis (licet revera qui hoc negant per neceſſariam conſequentiam *Dei* exiſtentiam etiam negant) ſic licet colligere. Nulla potentia *Materialis* et *Mortalis* elevari poteſt ad Deum *Immaterialem* et *Immortalem* apprehendendum et contemplandum; ſed anima humana elevatur ad *Deum* apprehendendum et contemplandum, ideoque etiam appe-

tendum et ut ſuo ſummo bono fruendum; ergo non eſt *Materialis* et *Mortalis*, ſed germen et propago Divinæ Naturæ: cui optime conſentiunt *S.* Script. phraſes, *Animam* appellando *Dei Imaginem*, *Candelam Domini*, et *Deum* Patrem *Spirituum*. Minor hujus Argumenti patet, nec ab adverſariis negatur; Ratio Majoris eſt, quod inter omnem Actum et Objectum intercedere debet naturæ proportio: quod etiam principiis *immortalitatis* adverſariorum eſt conſentaneum, dum docent Mentem corpoream res incorporeas apprehendere non poſſe.

Renatus Des Cartes, vir in multis ingenioſiſſimus, videtur mihi hoc Argumentum tractans, fundamentum jeciſſe in arenis; magno enim apparatu verborum, et ſingularem Methodum affectans, ad hanc veritatem demonſtrandum procedit; cujus tamen Argumenta mihi potius dulces phantaſiæ vel Meditationes (ut ipſe loquitur) quam rigidæ Demonſtrationes videntur. Primum et maximum ejus Argumentum ad hanc veritatem evincendam, tale eſt. Poſſum ego ſupponere, nihil exiſtere extra me, vel Deum, vel Cœlum, vel Terram; vel me habere manus, pedes, oculos, &c. et tamen omnibus his remotis, manet verum *ego Cogito*, ergo etiam hoc, *ego Sum*.

Miror neminem hujus ſuppoſitionis fallaciam detexiſſe: eſt enim non minus implicatoria quam hæc. Suppono nihil corporeum exiſtere extra me, tamen verum manet, ego video, ego audio: omnis enim *Actus* tam *Spiritualis* quam *corporeus* neceſſario supponit *objectum*. Et qui per ſuppoſitionem tollit *objectum*, neceſſario tollit et ipſum *actum*; qui enim cogitat, de aliquo cogitet neceſſe eſt, non minus quam qui videt, audit, neceſſe eſt *objectum* aliquod his facultatibus proportionatum habeat.

Si quis ad hanc ſuppoſitionem fulciendam diceret, poſſe *Animam* habere pro cogitationis *objecto seipsam:* Ad hoc Reſp. 1. veriſſimum eſt, *animam* poſſe ſuper ſuos actus directos reflectere, hoc eſt ſcire ſe ſcire: et hoc ſecundum eſt meum principale Argumentum pro *Animæ Immortalitate*, ſic enim arguo.

Sicut primo, illa *Natura*, quæ ad Deum contemplandum, appetendum et fruendum elevatur, neceſſe eſt *Immaterialis* et *Immortalis* ſit; Sic ſecundo, illa *Natura* quæ ſuper ſuos Actus reflectere poteſt, et ſe contemplare, neceſſe eſt hanc Naturæ Divinæ participem eſſe: ſed *Anima*, &c. Ratio Majoris eſt, quod ſit perfectio ſoli Naturæ Divinæ competens, ſe

contemplare, appetere et frui: Illa enim Natura quæ poteſt ſuper ſe refle&tere, ſe appetere et frui, nulla alia re exiſtente, eſt *Deus*. Quare cum *Anima* poſſit ſuper ſe refle&tere, (licet non in ſupra di&ta ſuppoſitione, ſic enim eſſet revera Deus) certum eſt hanc potentiam eſſe partem *Imaginis Divinæ*.

Sed ſecundo, quid hoc ad di&tam ſuppoſitionem fulciendam, quod *Anima* poſſit de ſe cogitare? Omnis enim *Actus Reflexus* (in Creatura) ſupponit *actum directum* ſuper quem refle&tit: omnis *actus directus* dicit eſſentialem reſpe&tum ad *objectum extrinsecus* exiſtens. Qui igitur per ſuppoſitionem tollit omnia *objecta extrinseca*, is etiam *actum directum* omnem tollit; qui *actum directum* tollit, is etiam *actum reflexum*, cum *actus directus* fit *actus reflexi objectum*. *Actus* autem *Reflexus purus*, ſine omni ſuppoſitione prioris *Actus directi*, eſt ſolius Dei. Quare ſupponere *Animam*, nulla alia re exiſtente, de ſe cogitare poſſe, eſt ſupponere impoſſibile; vel *Animam* eſſe *Deum*, quod eſt adhuc magis impoſſibile.

Tertio, Neque verba ipſa Autoris patiuntur hunc ſenſum; explicans enim ſe quid intelligat per vocem *cogitare*, dicit eſſe, hoc velle, illud nolle, de alio dubitare, &c. qui a&tus aperte referuntur ad *objecta externa*, quæ modo per ſuppoſitionem ſuſtulerat.

Si dicat quis, quomodo dici poſſunt illa principia prima notiſſima et veriſſima, de exiſtentia Dei et Animæ Immortalitate, cum ea homines do&ti habeant pro falſiſſimis? Reſp. Hos homines loqui vel ex pravo affe&tu vel eſſe Mente captos. Sed quis ita mente captus, ut notiſſima et prima principia neget? Imo, vidi aliquando homines morbo corporeo laborantes, dum alios loquentes audiebant, et intuebantur, tamen negaſſe ſe vel videre, vel audire, et quanto clarius proponebatur iis objectum, tanto magis negabant ſe ſentire. Sic contigit inſanientem Atheum, dum conceptus clariſſimos de Deo format, tunc ſtrenuiſſime hoc idem negare. Sed hi homines multum ſapientiæ in aliis rebus manifeſtant. Sic contigit aliquando quoſdam homines abſurde et ridicule de una aliqua re ſentire, in aliis tamen ſatis ſapere.

Sed ne diutius a propoſito digrediar, ſummam di&torum in hanc brevem circularem ratiocinunculam colligo, quæ mihi principia prima et notiſſima continet (cum ſcil. non ſenſum, ſed re&tæ rationis du&tum ſequor) quæque

ad omnia Atheorum Sophiſmata diluenda ſufficiunt; *Aut ego sum Immortalis, aut Deus non est,—Aut Deus est, aut ego nihil sum:* jamque ad *prædicamentum* redeo.

Et interrogo illos qui *prædicamenti* nullum uſum vident, quid ſignificent hæ voces *genus, species, differentia, definitio,* &c.? Certe, ſine prædicamenti ſuppoſitione ſunt omnino abſurdæ et nihil ſignificantes: omnis enim *demonstratio* ſupponit *definitionem, definitio genus* et *speciem, genus* et *species* ordinatam *seriem Prædicamentalem.* Et quidem ſi proprie loqui velimus, nulla eſt *definitio* vel *demonstratio* (licet Autorum ſcripta his vocibus abundent) quia nulla eſt conſtituta *series prædicamentalis:* hinc eſt, quod quæ habetur *definitio* ab uno, non merebitur *descriptionis* nomen (ut vulgo diſtinguunt) ab alio; ſic quod huic eſt *demonstratio,* illi eſt *Sophisma.*

Jecit Ariſtoteles quædam rudia fundamenta *prædicamenti,* et nos nihil vel parum ſuperſtruximus. Poſuit ille pro ſuo arbitrio decem Summa Genera Rerum, quaſdam notiones quæ ſub his comprehendi nequibant, *Transcendentes* et *Extravagantes* appellando; ex quibus duo alia *prædicamenta* eadem ratione et Autoritate conſtituere potuiſſet. Ratio quod hæc rerum ordinatio diſpliceat, eſt primo, quod non ſatis accurate diſtinguat *Rerum notiones;* cum eadem *notio* sæpiſſime diverſis reſpectibus, ad diverſa *prædicamenta* referri poteſt, *Qualitatis, Actionis, Relationis,* &c. Secundo, quod in recta ordinata *serie Rerum,* nullæ ſunt notiones *Transcendentes* admittendæ, niſi *genera* reſpectu *specierum* et *individuorum, Transcendentia* quis dicere velit. Qui enim notiones *Transcendentes* ullo alio ſenſu admittunt, contradicunt *prædicamenti definitioni* ab ipſis traditæ, ni. quod ſit *Series Rerum sub uno summo genere contentarum.* Eſt igitur ſecundum hanc definitionem, ſola notio *Entis* Tranſcendens.

Quid igitur fiet de his *unum, verum, bonum?* Omnino *Enti* ſubjugandæ ſunt, ſunt enim revera *Accidentia. Unitas* eſt Denominatio extrinſeca, Rebus adveniens per Intellectus operationem, non minus quam *dualitas, trinitas,* &c. nihil enim eſt quod conſtituat Petrum *unum* hominem ante operationem intellectus, quod non eadem ratione, conſtituat Petrum et Paulum *duos* homines. Formalis etiam ratio *Veritatis* conſiſtit in *relatione* inter *actum* Mentis et *objectum.* Sic denominatio *Bonitatis* dicit eſſentialem reſpectum ad *appetitum,* ſeu *voluntatem* aliquam. Imo Deus ipſe

O. M. ideo denominatur *optimus*, quod ſit ſumme *appetibilis:* licet enim omnis *voluntas* creata ceſſaret eſſe, vel *appetere* Deum, nihilominus maneret ſemper ſumme *appetibilis*, et actu *appetitus* ab *appetitu perfectissimo*, hoc eſt ſuo; ideoque ſumme *bonus*. Voces autem *Res* et *aliquid* ſunt omnino Synonymæ cum voce *Entis*.

Verum ad has notiones uberius explicandas, et in ſumma, ad terminos Metaphyſicos, Logicos, et Grammaticos, (quæ ut dixi eandem conſtituunt Artem) multa verborum caligine obſcuratos et intricatos, diſcutiendos, Tractatum ſpecialem poſtularet: Nam propter defectum accuratæ Doctrinæ Logicæ, plurimæ reperiuntur abſurdæ locutiones paſſim in ſcriptis Philoſophorum et Theologorum; ſæpius neceſſitate impoſita, etiam viris doctis, loquendi cum vulgo, ut a vulgo intelligantur. Et quidem hæc Magna Philoſophiæ *Reformatio* conſiſtit in *Seriei prædicamentalis* legitima ordinatione, quæ fons eſt omnium *definitionum*, *divisionum*, *demonstrationum*, aliorumque Logicorum *Argumentorum*, et *terminorum:* ad quod *Nobile Susceptum* ut alios provocem, et ut quibuſdam objectionibus contra ſequentem Rerum Seriem in Lexico hujus Artis exhibitam, occurratur, mentem meam de *Prædicamenti Natura* quibuſdam generalibus concluſionibus aperiam.

Primo, Male repreſentatur a Philoſophis prædicamenti natura, *Arboris* ſimilitudine; cum nihil ſit quod clarius illuſtret hanc Rerum et Notionum Seriem, quam *Genealogia* Generis Humani. Sicut enim *fide* credimus, omnes homines ab uno primo Parente deſcendiſſe, ſic *ratione* probamus, omnes particulares Notiones ab una prima *notione Entis* derivari. Hinc eſt quod recte vocari ſoleant Mentis humanæ apprehenſiones, ſeu perceptiones, *Rerum Conceptus: Res* enim ipſæ ſunt quaſi *Pater*, gignens in mentibus noſtris ſuam *Imaginem; Intellectus* vero eſt *Mater*, has imagines concipiens; et *Memoria* eſt *uterus*, in quo Rerum Imagines ſic genitæ geſtantur. Et quemadmodum videmus numerum *hominum*, ex ſucceſſiva et continuata generatione multiplicari; ſic etiam *notionum* numerus ex *Mente* humana, *corpore* non minus fœcunda, indies augetur. Et ſicut is ſolus dicendus eſſet perfectus *Historicus*, qui omnia Adami geſta, et continuatam Seriem totius ejus poſteritatis, omneſque eorum Actiones recitare poterit; ſic ille ſolus dicendus eſſet perfectus *Philo-*

sophus, qui totum numerum Rerum et Notionum, non minus numerofum quam eft Adami Pofteritas, defcendendo et viciffim afcendendo recitare poterit, omnefque mutuos refpectus horum inter fe computare. Hinc apparet, quantillum fit quod nos Homines fcimus; *Quam-quantum* vero quod nefcimus.

Secundo, fi ex una parte, Rerum numerum pene infinitum, multiplicefque et varios ipfarum refpectus mutuos, ex altera parte imbecillitatem Intellectus humani refpfciamus; expectandum non eft, talem *seriem Rerum* Arte humana conftrui poffe, quæ omnibus numeris, et ita abfolute fit perfecta, et quoad *numerum*, et quoad *methodum*, ut nihil vel *addi*, vel *demi*, vel *transmutari* poffit: refpectus enim Rerum ita multipliciter varii funt, ut earum Methodus fecundum varias fuppofitiones et varios refpectus, multipliciter variabilis fit. Nominetur enim quælibet Philofophiæ pars, et ad hanc tractandam adhibeantur feparatim mille viri doctiffimi; inveniretur duos horum in omnibus inter fe non confentire: quod non eft foli *humanæ imbecillitati* imputandum (quod bene advertendum eft) fed partim etiam, *Rerum* ipfarum *naturæ varietati*, et *respectui multiplici*. Nihilominus, licet talis perfectio expectanda non fit, maximi tamen effet ufus in Philofophia, habere unam aliquam plenam *Seriem Rerum*, fuffragiis multorum hominum doctorum comprobatam, omnes principales et notas notiones *Naturæ* et *Artis* legitima fubordinatione prædicamentali per modum *Generis* et *Speciei* complectentem.

Tertio, Duplex eft fuppofitio fecundum quam hæc *series Rerum* conftitui poteft, et exinde Rerum *Definitiones* deduci: Vel primo, inveftigando per Analyfin Logicam, certum numerum *primarum* et *simplicissimarum Notionum*, ex quibus omnes aliæ complexæ componuntur; et quidem hic Analyticus modus in penitiorem Rerum cognitionem ducit. Novi fententiam effe ingeniofiffimorum hominum, numerum *Notionum simplicium* per ftrictam Analyfin Logicam, pauciorem effe numero fonorum articulatorum fimplicium per ftrictam Analyfin Grammaticam. Vel fecundo, conftitui poteft hæc *series* reducendo omnes Notiones *Naturæ* et *Artis*, tam *Complexas* quam *Simplices*, ad lineam rectam prædicamentalem. Utriufque hujus Notionum texturæ magnus effet ufus in Philofophia.

Quarto, In ferie fecundum hanc fecundam fuppofitionem ftabilita, max-

ime naturale eſſet, eandem methodum obſervare in *substantiis*, et accidentibus ordinandis; cujus Methodi adumbrationem videre licet in *Tabulis* meis.

Quinto, *Divisio* Generum in hac Serie, procul omni dubio, optima et maxime naturalis eſſet *Dichotomica*, quæ omnium Diſtributionum eſt *optima*, quia *prima;* eſt enim primus diſceſſus ab *unitate*. Nec verum eſt illud quod vulgo objicitur contra Dichotomiam, quod magis confundat *memoriam;* modo enim oppoſitio quæ eſt fundamentum hujus diviſionis exhibeatur clara, nihil eſt quod magis adjuvet *memoriam*. Quotieſcunque igitur *Memoria* confunditur ex *Doctrina Dichotomica*, revera non tam *Memoria* quam *Intellectus* confunditur, qui nondum ſatis clare percepit diviſionis Rationem et Fundamentum.

Sexto, Diſtributio omnis Prædicamentalis perfecta, eſt facienda per differentias et Species *positivas;* ſecus enim nulla eſt legitima Diviſio facta: nullæ enim ſunt ſpecies rerum *non existentium*, et Differentiæ *negativæ* nequeunt ſpecies *positivas* conſtituere. Philoſophi et viri docti verborum fallacia hac in re valde decipiuntur; cum enim voces Linguarum vulgarium non ſint Philoſophice inſtitutæ, et propterea cum nobis deſint voces ad exprimendas multarum Rerum Differentias Categoricas, hinc eſt quod cogamur fingere voces *Negativas*, ex vocibus *positivis* diverſæ vel oppoſitæ ſignificationis, ad Notiones non minus *positivas* ſignificandas, quam ſunt iſtæ quæ vocibus *positivis* notantur: et ſic propter defectum vocabulorum, Differentias *positive* contrarias, vocibus *negativis* exprimimus. Res hæc, licet a paucis obſervata, eſt tamen apertiſſima; ut patet in his exemplis, *æquale*, *inæquale*, *par*, *impar:* notio enim *inæqualitatis* non minus eſt poſitiva quam *æqualitatis;* dicit enim unam quantitatem eſſe alia *majorem;* et quid magis poſitivum? Idem dicendum de *par* et *impar;* quæ Anglice, vocibus *positivis* redduntur, *even*, *odd*.

Septimo, male omnino, et fine ulla ratione, arcent Philoſophi *Artefacta* a Serie prædicamentali: *Artefacta* enim non minus ſunt objectum noſtræ cognitionis quam *Naturalia;* et non minus capacia ſunt *ordinis*, et *methodi*, quam illa.

Octavo, Notandum in tali *Serie*, quamplurimæ darentur voces *genericæ;* quales ſunt hæ, *Accidens*, *Qualitas*, *Quantitas*, *Relatio*, *planta*, *brutum*, *avis*,

&c. quæ communiores Rerum reſpectus et convenientias notant. Suppoſito enim quod numerus *specierum infimarum* eſſet 4000 vel 10000, totidem eſſet numerus notionum *Genericarum:* quia ſcil. jam ſuppoſuimus omnem Generum diviſionem eſſe dichotomice factam: et notiones Genericæ et communiores, unica voce expreſſæ, eſſent valde Emphaticæ, et ad docendum aptæ. Sic, daretur una notio communis *Generica*, ad omnes *Species* differentiis contrariis et poſitivis diſtinctas: Sicut enim *sexus* eſt notio communis ad *marem* et *fæminam*, ſic *calidum* et *frigidum*, *humidum* et *siccum*, *durum* et *molle*, &c. unicam notionem communem *genericam*, in qua convenirent, haberent. Specimen hujus Methodi videre licet apud Petrum Ramum, qui ſolus (quantum vidi) diſtributionem *Dichotomicam*, ſecundum ſtrictas leges *prædicamentales*, in ſuis ſcriptis Philoſophicis accurate obſervavit; licet illi defuerint *voces simplices* ad notiones *Genericas* diſtincte et compendioſe ſine periphraſi exprimendas.

CAP. IV.

COROLLARIA QUÆDAM GRAMMATICALIA EX DICTIS DE PRÆDICAMENTO.

Ex iis quæ jam dixi de *prædicamento* in Genere, quod fundamentum eſt, et Materia *in qua* Grammatica, Corollaria quædam Grammaticalia deducam.

Primo, Conſtitutio illa Prædicamenti, quæ Notiones *primas* et *simpliciſsimas* (quarum numerum non ſuperare decem opinio eſt quorundam) primo loco diſponit; deinde compoſitas ex his paucis ſimplicibus, pro ratione varia qua ex his componuntur, et multiplici reſpectu quem ad ſe invicem dicunt, Fundamentum non eſt idoneum Artis Grammaticæ; idque propter duplicem rationem, unam a *Rebus* ipſis, alteram a *Signis petitam*.

Primo, qui Analyſin accuratam omnium Notionum *Naturæ* et *Artis*, maxime *complexarum*, in prima ſua Elementa, omneſque reſpectus mutuos *simplicium* in hoc Compoſito, curioſe perſequeretur; toties neceſſario ab illo aſſumerentur, et reaſſumerentur hæc *simplicia*, ad varios reſpectus *Compositi* ſignificandos, illudque ab omnibus aliis rebus perfecte diſcriminandum; ut perfecta jam Analyſi, Notio hæc *una* præ oculis poneretur, ſæpiſſime, in tot *Partes* diſtributa a Philoſopho curioſo, quot corpus humanum, poſt diſſectionem, a perito Anatomico. Et quidem non minus difficile eſſet, ex tot partibus per hanc Analyſin jam ſeparatim poſitis, colligere unam completam et integram formam hujus Compoſiti, ita clare ut ab omnibus aliis Compoſitis ex iiſdem ſimplicibus diſtinguatur; quam ex diſſecto cadavere in minutiſſimas partes, diſcernere cujus ſit, an Petri, Jacobi, vel Thomæ, &c. Non nego (ut ſupra docui) hujuſmodi Analyſes in penitiorem et interiorem rerum cognitionem ducere; Imo dico hanc eſſe ſummam Philoſophiæ perfectionem, poſſe quamlibet propoſitam Notionem in ſua prima principia reſolvere: qui modus philoſophandi utiliſſimus nimis negligitur. Apparet tamen ex dictis, hanc Analyſin parum conducere ad hanc Notionem, ſub forma unius Compoſiti, ſtatim unico Mentis actu, ſine longo diſcurſu, apprehendendum.

Secundo, Si ſigna reſpiciamus, idem manifeſtum erit; hoc principium omnino ineptum eſſe, ut ſecundum illud Nomina Rebus imponantur. Supponamus enim Notionum aliquam, per dictam Analyſin diſtribui in centum, forte mille particulas, ad omnes minutas Differentias hujus Rei, quibus ab omnibus aliis diſtinguitur, notandas: oporteret, ut ad minimum, ſingulæ particulæ ſeu Differentiæ unam literam, ad illas diſtincte ſignificandum haberent; his igitur literis in unam vocem collectis, Rerum Nomina in eam longitudinem excreſcerent, ut vox una integram paginam impleret. Summe quidem cum illis conſentio, qui majore acumine Philoſophiæ partem Analyticam contemplant, quam Philoſophorum vulgus; quanto pauciora fuerint Signa Primitiva, ex quibus Rerum Complexarum Nomina, non ex mero Arbitrio, ſed Logice et ſecundum Rei Naturam componentur, tanto perfectior erit Ars: Fruſtra enim fit per plura, quod æque, vel magis commode fieri poteſt per pauciora. Verum in tanta paucitate Primitivarum, ex nimia brevitate, nimia obſcuritas oriretur: experientia etiam

comprobaret, plus Arbitrii neceſſario fore in hujuſmodi Compoſitis quam ipſis ſimplicibus.

Secundo, Nec illa conſtitutio Seriei Prædicamentalis, in qua omnes diſtinctæ Notiones Naturæ et Artis, tam complexæ quam ſimplices, per ordinatam ſeriem Generum et Specierum in linea Prædicamentali collocarentur, adeoque diſtinctis Nominibus Primitivis notandæ, eſſet ſtructuræ hujus Linguæ principium accommodatum. Ratio eſt, quod numerus vocum Primitivarum eſſet pene infinitus; Bauhinus numerat 6000 ſpecies plantarum; Brutorum ingens eſt numerus; vocabulorum Artis et Rerum Artefactarum, a nemine adhuc ad methodum Artis reductarum, multo major eſſet. Imo, ut docent Philoſophi, continuum quodlibet minimum dividi poſſe in infinitum, ſic non minus vere, quodlibet Genus vel ſpecies dividi poteſt per infinitas differentias: ſic *numeri, colores, soni, passiones animi*, &c. Natura autem ipſa in omni homine docet Rerum Naturas ſub communi et univerſali reſpectu conſiderare, et ex paucis quibuſdam Communibus Rerum rationibus, particulares Rerum naturas deſcribere: quamobrem, omnino æquum eſt, ut Ars (quæ nihil eſt aliud niſi Natura Exculta) rationes Rerum maxime communes doceat, ex quibus particularium Rerum Naturæ deſcribi poſſunt.

Quare Tertio, neutrum horum extremorum ſequendum judicavi; ſed viam mediam ineundam (quæ in Rebus multis maxime probatur) hoc eſt, ſelectum numerum principaliorum Notionum, ex primis et præcipuis Scientiis eſſe delegendum, earum ſcil. quæ reſpectus Rerum Communiores dicunt; et has pro primis ſupponere, iiſque ſignificandis voces Radicales imponere, ex quibus aliarum Rerum complexarum Nomina conficerentur.

Quot autem præciſe numero ſint hæ Notiones, et ſecundo, quænam nominatim tales ſint habendæ, et tertio quo ordine inter ſe collocandæ; in his quæſtionibus reſolvendis, veriſſime dici poteſt, quot capita tot ſententiæ. Cenſeo tamen omnes viros vere doctos mecum in hoc conſenſuros, nullam harum quæſtionum determinari poſſe ſine multo Arbitrii. Ingenii vero mei Menſura circa eas haberi poteſt ex Tabulis ſeu Lexico hujus operis: quas non offero ut Seriem Rerum ſumme perfectam, vel quoad Numerum, vel Methodum Notionum inibi contentarum; ſed multum Arbitrii habere admixtum agnoſco: hactenus enim docui, hanc Artem Signorum ſtrictas Leges Philoſophiæ non pati.

CAP. V.

EXPLICATIO TABULARUM.

QUANDOQUIDEM jam ad ſolos doctos ſcribo, quibus pauca verba ſufficient, non morabor longam diſputationem inſtituere de ſingularum Notionum natura et Methodo; ſed paucis tantummodo ſeriem hanc Rerum adumbrabo, rationem diſſenſus mei a vulgari opinione in quibuſdam breviter inuendo, quæ obvia ſunt prætereundo.

Cum Philoſophis omnibus ſanioribus Conſentio, dari unum Summum Genus, et primum et communiſſimum conceptum, quem ſolemus appellare *Ens*, ſeu *Res*. Verum in primis Differentiis *Ens* dividentibus, ſententia mea ab illorum differt: Tam cito ſcil. oriuntur opinionum differentiæ inter nos homines, quam in ipſis rebus inveniuntur. Docent illi *substare* et *accidere* primo dividere *Ens*: Mihi vero videtur, Seriem perfecte prædicamentalem conſtitui non poſſe, ſecundum quam legitimæ prædicationes fieri poſſunt, niſi Differentias concipiamus magis latepatentes, quæ adæquate dividant *Ens*, ſub conceptu et reſpectu communiſſimo: has ego vocavi, *abstractum* eſſe et *concretum* eſſe; vel *simplex* et *compositum*; vel ſtatum rei *incompletum* et *completum*; Ens vero incompletum ſecunda diviſione, in *Substantiam* et *Accidens* dividendo: niſi quis mallet uti diviſione *trichotomica*, ſic; *Ens* eſt *substantia*, *accidens*, et *Compositum*; quæ forte in hoc caſu, et quibuſdam aliis, non minus eſt perfecta quam dichotomia. Ratio diſſenſus eſt, quod omnis prædicatio Generis, ſive immediati ſive mediati de inferiore ſpecie, ſicut excludit a ſuo conceptu differentiam Generis oppoſiti, ſic etiam a conceptu ſpeciei de qua prædicatur eandem excludit: quare bene arguitur *lapis est corpus*, ergo omnem conceptum *spiritus* excludit: *Lapis est inanimatus*, ergo omnem conceptum *animati* excludit: at vero, hoc falſum erit; *Lapis est substantia*, ergo omnem conceptum *Accidentis* excludit; eſt enim conceptus *accidentis* non minus eſſentialis lapidi, quam *substantiæ*; ſaltem ſecundum opinionem hodie communiorem

negantem Formas Subſtantiales Materiales. Cum igitur lapis nequeat dici proprie, vel *substantia*, vel *accidens;* conſentaneum videtur, ut alia ratio Generica ſtabiliatur in ſerie prædicamentali, quæ de his Notionibus proprie prædicari poſſit. Eodem redit eorum ſententia, qui ſubſtantiam dividunt in *incompletam* et *completam;* ſed minus proprie meo judicio loquuntur, ſecundum ſtrictas leges prædicamentales.

De diviſione notionis *Concreti* (qua voce ego utar in ſequentibus pro *substantia*) videtur eodem modo philoſophandum quo de *Ente;* vel dichotomice, ſic; in *imperfectius* et *perfectius*. Imperfectius continet Concreta vulgo Subſtantias *Corporeas*, et *Spiritus* a corpore ſeparatos: perfectius, Hominem, id eſt, concretum compoſitum ex his incompletis; propter quam rationem et alias hic non nominandas, videtur mihi revera Hominem eſſe omnium creaturarum perfectiſſimum. Vel ſecundo, trichotomice ſic, in *corporeum*, *ſpirituale*, et *compoſitum*. Hic Notandum ulterius de Notione *Hominis*, quod male collocetur in linea prædicamentali ſub Genere mediato *animal*, et conſequenter ſub Genere Subſtantiæ *corporeæ;* ſi enim hæc ſit vera prædicatio, *homo est substantia corporea;* ſequetur a conceptu *hominis* removendum omnem conceptum *ſpiritus*.

Concreta Materialia divido in *Mathematica*, *Physica*, et *Artefacta*. Miratus ſum ſemper has notiones Mathematicas, quas ego hic pro *Concretis* poſui, a philoſophis haberi *accidentia:* Quis enim non clare percipit has voces, *punctum*, *linea*, *ſuperficies*, &c. eſſe *Concreta*, cum ſignificent *ſubjectum* et *formam?* Quare hæc propoſitio *linea est longitudo*, eſt vel identica, vel falſa.

Notandum de his Notionibus, quod Nomina Rerum corporearum *Quantitatem* vel *figuram* eſſentialiter dicentium, hinc deſumenda eſſe: ſic, *scintilla*, *arena*, *pulvis*, *gutta;* mamnnm, mamnnf, mamnom mamnim, &c. id eſt, punctum ignis, lapidis, &c. Sic linea ignis, ligni, vel cujuſvis materiæ, ubi longitudo præcipue innuitur: ſic folium Chartæ, lamina, bractea, ad ſuperficiem referuntur.

In concretis *Physicis* Methodum receptam ſequutus ſum, Corpora omnia ſimplicia ſub uno genere comprehendi; nec judicabam neceſſarium addere iſtam vocem Genericam *Elementi*, cum ſatis exprimi poſſit hæc Notio *neim grvpomp*. Partes Cœli poſui ſolummodo tres; nec judicabam neceſ-

ſarium pro conſtellationibus omnibus (quæ Artis vocabula ſunt) ponere voces Radicales; notio enim Conſtellationis ſatis commode exprimitur, *asind, stellarum aggregatum.* Nomina vero particularium Conſtellationum, imponi debent ex his, per deſcriptionem a forma, numero, ſituatione, aut alio accidente maxime diſtinguente: e. g. *asind vai, pleiades,* &c. quod faciendum Aſtronomis commendo; ſicut et in aliis Artibus, terminorum Artis Nomina, ab Artium peritis imponenda relinquo. Vix enim expectandum eſt ab uno aliquo homine, ut ſit par huic ſuſcepto imponendi apta Nomina terminis Artium omnium, quod faciendum eſt per deſcriptiones ex primitivis deſumptas; idque quantum cum claritate fieri poteſt, in una voce, per derivationem, vel compoſitionem: ubi vero natura rerum hoc non patitur, per periphraſin plurium vocum.

An detur elementum ignis non diſputo, ſed vulgarem opinionem hac in re ſequor; ut etiam, ſintne iſtæ partes quas ego poſui, ſtricte loquendo ſic dicendæ, et inter ſe diſtinctæ. Novi ſatis ſi detur elementum ignis, ibi nec *fumum*, nec *fuliginem*, nec *cineres* eſſe: Attamen nemo eſt qui non videt, has notiones dicere eſſentialem reſpectum ad ignem hic apud nos. Sic nolo aſſerere has partes eſſe ſtricte loquendo diſtinctas; novi enim *fumum* et *fuliginem* differre tantum ut eadem res *rarefacta* et *densifacta*: vel, ſi quis non ferat me ſic loqui, *fumus* nihil eſt aliud niſi *punctula* (ſic enim magis Philoſophice dicuntur quam *Atoma*) materiæ combuſtibilis, per intenſum calorem reſoluta et diſſipata; *fuligo* vero, eſt collectio horum ſparſorum punctulorum in locum minorem. Sed rationem reddidi ſuperius, cur omnes Notiones vere *compositas* non hic pro talibus habeam; et ſi de methodo et loco prædicamentali cujuſque particularis Notionis curioſe diſputaremus, diſputaremus in æternum; quare iterum dico hic multum Arbitrii neceſſario eſt admittendum. Omnibus igitur conſideratis, non vereor aſſerere, recte et accommodate ſatis ad propoſitum meum, has notiones poſitas eſſe ut *partes* ignis; quod etiam intelligendum volo in aliis partibus harum Tabularum, ad quarum particularem explicationem, memor polliciti, jam non deſcendam; ſed explicationem *Concretorum Physicorum* his paucis Notandis abſolvam.

Primo, In re *Herbaria* ſecutus ſum Senertum, in *Arboribus* Spigelium, in *brutis* Jonſtonum. Secundo, Non omnes differentias et Convenientias

concretorum phyſicorum quæ apud hos Autores inveniuntur, ſed præcipuas tantum ſelegi: Quam inconveniens fuiſſet hos Autores in omnibus ſequi, nemo doctus non videbit, cui ſcripta horum Autorum nota ſunt, et qui naturam ſuſcepti mei ſatis apprehendit. Tertio, Una et eadem res per variam compoſitionem poteſt multis appellari Nominibus; ſic *Elephas*, *Nηkbeisap*, vel *Nηksofprηk*. Quarto, Quædam ſpecies vix poſſunt unica voce ſatis ſignificanter exprimi, quo caſu addendæ ſunt plures voces; quod etiam videri licet in omnibus linguis, præcipue in numeroſa *plantarum* familia. Quinto, Licet aliquando contingat, quaſdam Rerum Species infimas non poſſe ſatis ſignificanter Nomina habere a notione Generica, et ſuperaddita Differentia, una, vel pluribus ex aliis radicibus, ſine longa periphraſi; tamen magis eſt philoſophicum, et meo inſtituto congruum (cum hi caſus omnino rari ſint, rariſſimi vero [quod præcipue attendendum eſt] in Notionibus communioribus et vulgaris uſus) vel longa periphraſi uti, vel etiam differentiam mere fictam ſuperaddere Notioni Genericæ, quod plus memoriæ opitulabitur, quam ſi omnes infimæ ſpecies fierent primitivæ, et ordine numerico diſponerentur; nihil enim magis onerat memoriam, quam ordo numericus. Quinto, Si cui forte magis placeret definitiones Specierum *Naturæ* et *Artis* conficere ex Genere, et Loco numerico pro differentia poſito, quam per differentiam petitam ex aliis radicalibus, et Generi ſuperadditam; poteſt hoc fieri ſine minima variatione harum Tabularum, ni. addendo literas terminales voci genericæ ordinis numerici ſignificativas, *e. g.*

Nηka	pro	1. Elephas.
Nηkη		2. Equus.
Nηke		3. Aſinus.
Nηko		4. Mulus.

Sexto, Nil refert, quod quædam Genera aliquando coincidant in quibuſdam eorum ſpeciebus; neceſſarium enim duxi convenientias Rerum maxime communes ſeligere, licet aliquando coinciderent in aliquibus.

Concreta Artefacta quod attinet, nemo Philoſophus (quod ſciam) ante me tentavit reducere ad prædicamentum; multo minus ferunt Philoſophi

ea *Substantias* (hoc eſt entia concreta) vocari. Cum Notiones *Artis* non minus numeroſæ ſint quam Notiones *Naturæ*, ideo decrevi, non proſequi minutiores Differentias, ſed quaſdam Notiones Genericas diſponere, ex quibus Nomina Inferiorum Specierum, vel per derivationem, compoſitionem, vel periphraſin exprimi poſſint. Via admodum intrita fuit in ordinandis Genericis Notionibus Artefactorum: Nihil tamen dubito, quin Notiones Genericæ quas hic poſui, ſatis ſint claræ, et obviæ, et inter ſe diſtinctæ, ut etiam comprehenſivæ ſub ſe omnium Notionum Artefactarum. In his explicandis non morabor, ſed duabus factis obſervationibus ad alia tranſibo.

Sicut in Concretis Phyſicis Nomina infimarum Specierum fiunt per compoſitionem ex Notionibus Radicalibus; ſic etiam, hoc idem fit in Artefactis cum eadem prorſus ſit ratio utrobique. Quare ſicut Nomina *elephantis*, *equi*, *muli*, *asini*, fiunt ex hoc genere Radicali *nɳk*, et differentiis ex aliis Radicalibus aſcitis, ſic *nɳkbeisap*, *nɳkpot*, *nɳksofpad*, *nɳkpim*; ſic eodem modo, *poculum*, *cochlear*, *matula*, &c. fiunt ex Generica notione *fren*, et differentiis ſuperadditis: *frenpraf*, *frenneis*, *frenirem*, &c. Sic, *palatium*, *carcer*, *templum*, *officina*, *tugurium*, *cubiculum*; *fankan*, *fancog*, *fanskas*, vel *fansava*, vel *fanskaf*, *fanspnd*, *fanstref*, *fanfrim*; ſic, *pileus*, *chirotheca*, *thorax*, *calceus*, *braccæ*, *caligæ*; *freimmeis*, *freimsmus*, *freimfeis*, *freimsmur*, *freimsmnr*, *freimsmer*, &c. uno verbo. Nulla eſt Notio Radicalis in Tabulis Primitivorum Concretorum, ſive Mathem. ſive Phyſic. ſive Artef. ex qua, tanquam Genere, et aliis aliunde aſcitis differentiis, non fiant quamplurimæ inferiores Species. Et quidem modi hujus imponendi Nomina Rebus, veſtigia quædam inveniuntur in omnibus Linguis; neceſſitate et Natura ipſa hoc dictante, ne fiat progreſſus in infinitum. Sed *Natura* hac in Re, hic *Arte* magis excolenda eſt.

Secundo, Tenendum in Rerum Nominibus componendis, non eſſe neceſſarium ut differentia Generi ſuperaddita ſit tota rei Forma, quam docent philoſophi eſſe unum aliquid ſimplex, occultum (ipſi neſciunt quid) latitans inviſibiliter (et etiam inintelligibiliter) in Rebus; ad quam inveniendam nullum acumen penetrare poteſt. Verum hoc eſt commentum abſurdum; omnium enim Rerum quarumcunque *formæ* ſunt inadæquate cognitæ; nam quicquid cognoſcimus de Re aliqua eſt pars ejus *formæ*: dico eſt *pars*

Formæ; *Forma* enim nihil eſt aliud quam aggregatum omnium accidentium alicujus Rei. Sunt etiam formæ omnes inadæquate nobis cognitæ, nam multa ſunt accidentia, qualitates, potentiæ, reſpectus, &c. in Rebus (etiam iis quarum Naturæ ſunt nobis maxime notæ) quæ a nobis non intelliguntur. Satis igitur eſt, ſi differentia ſuperaddita Generi, fit tale Accidens, quod diſtinguat Speciem ab omnibus aliis. Atque hæc dicta ſint de *Concretis;* ſequuntur *accidentia.*

Tenendum in Genere de Notionibus Accidentalibus, quod methodus harum maxime naturalis fit eadem omnino quæ concretorum: ni. Primo, Accidentia Concretorum in genere; Secundo, Mathemat. Tertio, Phyſic. &c. ut patet ex comparatione Tabularum Concretorum, et Accidentium.

Primum igitur obtinent locum Notiones *Logicæ,* ſeu *Metaphysicæ,* quarum litera *S* eſt Characteriſtica: has qui probe intellexerit, et uti poterit, Logici Nomine vere dignus erit. Solent hæ Notiones a Philoſophis *Transcendentes* vocari: modo intelligant, quod hæ Notiones ſint Accidentia, quorum ſignificatio communis eſt *spiritibus,* et *corporibus* abſque ulla Metaphora, ego hunc loquendi modum admittam, ſecus non.

Inter has primum locum do *causis Rerum;* ad quem licet plures reduxerim Notiones quam vulgo ſolent alii, non tamen quam rerum Natura poſtulabat. Secundum locum dedi *modis existendi;* quæ Notio valde communis et frequens eſt, ſignificat enim *statum,* ſeu *conditionem* rei. Tertium dedi *Modis agendi;* quæ Notio diverſiſſima eſt a priori, quamvis Logici has confundant; nec quidem ullam accuratam diſtinctionem faciunt inter *Accidens, qualitas,* et *Modus.* Sed cum ſingula proſequi non vacet, de gradibus comparationis quos poſui ſexto loco, pauca notabo.

Notiones hæ ſunt maximi et frequentiſſimi uſus; eſt enim Actus Mentis *comparativus* longe excellentiſſimus in Rerum Scientia acquirenda: vix proferri poteſt ſententia in qua Argumenta *Comparata* vel Cauſæ locum non habeant. Et tamen in nulla parte Logicæ magis cæcutiunt Logici, quam in Doctrina *Comparatorum.* Etiam ipſe Petrus Ramus, me Judice, Logicorum Scriptorum acutiſſimus, hic in tenebris verſatus eſt; nam inter Argumenta Comparata explicaſſe debuit *magnum* et *parvum,* et *maximum* et *minimum,* non minus quam *majora* et *minora:* licet enim hi gradus diſtinctionis cauſa, a Grammaticis dicantur *positivi* et *superlativi,* non, tamen

minus proprie ſunt Comparativi, quam *majora* et *minora*. Deinde, non fiunt hæ Comparationes in ſola *quantitate*, ut ille opinatur; ſed hæ notæ comparationis tranſcendunt et *quantitatem* et *qualitatem*, et utrique ſunt æque applicabiles. Verum cum voces *majora* et *minora*, in uſu vulgari appropriatæ ſint ſolummodo Rebus *quantis*, ut veram naturam *comparatorum* intelligamus, neceſſe eſt abſtrahamus a vulgaribus vocibus, ne vocum ambiguitate decipiamur: quare argumenta Comparata explico per voces Adverbiales, quibus ſecundum uſum vulgarem, et recte, utimur indifferenter pro comparatis, tam in *qualitate*, quam *quantitate*. Notæ comparationis principaliores ſunt hæ; *magis*, *æque*, *minus*; ex quibus oriuntur, *valde*, *mediocriter*, *parum*, et *maxime*, *minime*: ſic dicimus, *magis* longum, et *magis* album; *æque* longa, et *æque* alba. Verum cum has Notiones Nominaliter et adjective exprimimus, utimur diverſis vocibus, pro comparatione in *quantitate* et *qualitate*; et dicimus, *magnus* ignis, *intensus* calor; *major* ignis, et *intensior* calor.

Dico, licet ſtricte loquendo, omnes gradus comparationis poſſunt reduci ad *magis*, *minus*, et *æque*; tamen cæteri gradus, cum innuant diverſitatem graduum, et modi comparandi res, ratio poſtulat ea in diſtincta Argumenta Logica Comparata diſtingui. *E* contra vero, male docetur *æqualia*, *inæqualia*; *similia*, *dissimilia*; *paria*, *imparia*, eſſe diſtincta Argumenta Logica, cum in gradibus Comparationis, et Actu Comparativo, ne minima ſit diverſitas, ſed in ſolis ſubjectis; ut patet ex reſolutione harum propoſitionum; parietes ſunt *similes*; id eſt, *æque* albi; hæ duæ lineæ ſunt *æquales*; id eſt, *æque* longæ; hi numeri ſunt *pares*; id eſt, *æque* multi, ſeu quanti: in quibus apparet idem omnino eſſe Logicum Argumentum.

De Accidentibus Mathematicis, quorum *B* eſt Characteriſticum: Notetur 1. Præpoſitiones quæ cum verbis motus junguntur, hinc petendæ ſunt; quæ voculæ (ſicut omnes aliæ particulæ) admodum ſunt ambiguæ, et incertæ ſignificationis in linguis. Hujuſmodi ſunt, *per*, *præter*, *trans*, *supra*, *infra*, *ad*, *ab*, *ex*, *in*, &c. quarum ſignificatio hinc determinanda eſt. 2. Poſui ſex principales differentias *ſitus*, ſub terminis relativis, quæ ad *Mundum* applicatæ, ſignificant *Oriens*, *Occidens*, *Septentrio*, *Auster*, *Zenith*, *nadir*: ad *hominem* relatæ, vel *brutum*, vel *Artefactum*, ſignificant *ante*, *post*, *dextra*, *ſinistra*, *supra*, *infra*.

Sub Genere *D* posui illas Notiones quæ solent a Physicis, in parte Physicæ generali tractari; de quibus hic nihil singulare notabo, nisi quod numerum harum multum auxerim (propter majorem facilitatem Communicationis) supra quem invenerim in Philosophorum scriptis.

Sub *G* complexus sum Notiones Physicas magis speciales, id est, *qualitates sensibiles;* quas distribui secundum ordinem sensuum, progrediendo ab imperfectioribus ad perfectiora. Deque his notetur. 1. Desiderari in Linguis vernaculis vocem Genericam ad significandum objectum *tactus;* cum tamen ratio postulet ut objectum *Tactus* una voce significetur, non minus quam *color*, *sonus*, *odor*, *sapor*. 2. Tanta est affinitas sensuum *gustus* et *olfactus*, ut vix censeam illos dicendos distinctos sensus: nec minori cum ratione, (meo judicio) secundum opinionem Scaligeri, appetitus venereus distingui potest a sensu tactus. 3. Cum duplex sit objectum generale *visus*, ego posui *colorem* ut principale *objectum*, et *lucem* ut speciem sub eo; non ignoro tamen multos Philosophos asserere, *Colorem* esse potius speciem *lucis*.

De Genere *P* Not. 1. Quod hic non expresserim potentias sensitivas *externas* [hic] quia satis commode formantur ab organis sensus, quæ Radicalia sunt inter membra corporis. 2. Differentiæ Genericæ in Tabulis positæ, stricte et proprie loquendo tales non sunt; nec tales (ausim asserere) possibile est invenire instituto meo applicabiles; quare docendi causa solum, passiones ita distinguuntur, in *principales*, *minus principales*, et *affines*, &c. 3. Me pleniorem Passionum enumerationem fecisse, quam inveniri potest apud quemvis Philosophum qui materiam hanc tractavit; et tamen præcipuas tantum enumeravi: numerus enim passionum in variis hominibus est infinitus; nemo est qui non habeat in se quasdam passiones, quæ in nullo alio inveniuntur. 4. Omnes *virtutes* hinc præcipue petendæ sunt; cum virtus nihil sit aliud, quam debita moderatio animi motuum, *vitium* vero, defectus vel excessus eorundem.

Atque hic filum Explicationis rumpam; multa consulto tacens, partim quod sciam Homines doctos, et hujus operis dignos censores, ex paucis quæ hactenus dicta sunt, rationem Methodi in sequentibus satis apprehensuros, partim etiam propter alias causas.

CAP. VI.

DE INSTITUTIONE VERBORUM, SEU SIGNORUM APPLICATIONE AD TABULAS.

Qui in praxi hujus Artis verſari velit, diligenter attendat Regulas hoc capite traditas.

1. Ordo literarum, ut capite primo docetur, perfecte tenendus et præ oculis ponendus eſt.

2. Conatus eram omni ſtudio, tot Summa Genera Rerum conſtituere quot ſoni ſimplices ſunt, idque methodo correſpondenti inter *Signum* et *Signatum;* verum multa erant quæ huic conatui obſtabant. Quantum tamen potui, convenientiam Symbolicam inter *Signum* et *Signatum*, etiam in prima ſignorum impoſitione obſervavi; ut conſideranti patebit.

3. Summa Genera Rerum Septem primis literis notantur, id eſt, *vocalibus;* quibus ſubjungitur litera *v*, diſtinctionis cauſa, et ut voces flexionis ſint capaces: *v* enim præcedens, ſemper eſt nota dictionis *numericæ;* ipſum tamen *v* nullum *numerum* ſignificat, ſed tantummodo diſtinguit voces *numericas* ab aliis vocibus; nam *ab* eſt *basis*, ſed *vab* ſignificat 14.

4. Literæ *ei* et *s*, in vocibus *Genericis*, ſunt tantummodo *serviles* et *Expletivæ*, ad faciendam integram vocem; nam in ſummis Generibus Concretorum et Accidentium, Litera Characteriſtica eſt unica: ſic, *M* eſt concretum Mathematicum; *N* Concretum phyſicum; *S* Accidens Commune: quare his addendæ ſunt Literæ in hoc caſu ſerviles *eis*, ſic *Meis*, *Neis*, *Seis*. In Generibus vero Intermediis Accidentium, quorum duæ ſunt literæ Characteriſticæ, ſola *S* aſciſcitur in fine; ut *gos*, color, *gis*, ſonus, &c. Sic etiam in Notionibus Genericis *partium corporis;* ubi Nomina *Specierum* formantur additione vocalium ante literam Genericam, *ei* additur ad vocem Genericam faciendam; ut *eim*, *ein*, &c. Cum vero ſpecies formantur ſubſecutione vocalium, Species diſtinguentium, tunc Nomen Genericum formatur additione terminationis *eis;* ut *meis*, *neis*, *feis*, &c.

5. Summa Genera Concretorum tribus conſonantibus naſalibus notantur; quibus addenda eſt terminatio *eis*, ut voces integræ fiant, ut jam dictum.

6. Intermedia Genera Concretorum ſæpius Polyſyllabica ſunt, propterea quod adſciſcant literas Characteriſticas Generum inferiorum. Sic cum Concretum Phyſicum dividitur in hæc tria intermedia Genera, *Inanimatum*, *Planta*, *Brutum*, tres literæ *m*, *n*, *f*, ſunt Characteriſticæ *Inanimati*, et copulantur cum litera Generica *N*, per ſervilem dipthongum *ei*; ſic, *Neimneif*. Sic *b d g* ſunt Characteriſticæ *Plantæ*, et fit *neibdeig*: *p t k*, *Bruti*, et fit *Neipteik*.

7. In Nominibus Specierum infimarum componendis, quæ Characteribus minuſculis in Tabulis diſtinguuntur, Literæ duæ poſteriores, quarum prior ſignificativa eſt Generis intermedii, poſterior vero ipſius Speciei, ſolæ ſeptem vocales, et novem principaliores Conſonantes, locum habent.

8. In Tabulis Concretorum, Litera ſecunda (hoc eſt vocalis) eſt Characteriſtica Speciei; tertia vero, ſcil. Conſonans, eſt Characteriſt. Generis intermedii. In Tabulis vero Accidentium, contrario modo ſe habet, ut patet comparando Tabulas.

9. Nomina Notionum incompletarum in Tabulis Concretorum, id eſt, Partium Rerum, ſunt etiam voces incompletæ et mutilæ: id eſt, biliterales (duplices enim literæ *fr*, *fl*, *sm*, *sn*, &c. habendæ ſunt pro ſimplicibus, quæ loco ſimplicium literarum ſupponuntur, propter penuriam literarum ſimplicium) quæ quantum literarum diſtributio ſinebat, habent præcipuam Characteriſticam Literam ſui Integri ſeu Totius, cujus ſunt partes: Sic partes *Figuræ* habent *b*, quæ eſt Charact. Figuræ; idem videtur in partibus *Cœli*, *Ignis*, &c. ad quarum ſpecies diſtinguendas *s r l* ſunt Characteriſticæ, quæ nullo alio caſu ſunt Characteriſticæ ſpecierum. Sic Nomina partium *Animalis* (quod omnium corporum Naturalium eſt perfectiſſimum, ideoque plurimas habet partes) componuntur ex *m*, *n*, *f*, quæ Characteriſticæ ſunt *Animalis*, ſeptem vocalibus diſtinguentibus ſpecies, nunc vocalibus præcedentibus, nunc ſubſequentibus. Verum tamen Notandum, quod Literarum diſtributio non ſinebat, abſque confuſione cum aliis vocibus, omnes *partes* ſic notare, per Characteriſticon Nominis ſui *Integri* ſeu *Totius*, ut patet ex partibus *Domus* et *Navis*.

10. Literæ *r* et *l* ſunt Serviles in Tabulis Accidentium: *r* eſt ſignum oppoſitæ Notionis, *l* mediæ inter duas extremas. Eundem habent uſum in Nominibus *Partium*, in Tabulis Concretorum; Verum in Nominibus Concretorum integrorum ſeu Completorum, hæ Literæ poſt *f* ponuntur, propter defectum Literarum ſimplicium, et copiam differentiarum Rerum; ut etiam aliquando *s* additur in initio, propter eandem cauſam, tam in Tabulis Concretorum, quam Accidentium.

11. Regula oppoſitionis et Medii locum habet in ſolis Accidentibus, et Notionibus incompletis inter Concreta; De quibus tenendum, Rationem Oppoſitionis non ſemper eſſe manifeſtam, ſed ad modum oppoſitorum quædam diſponuntur, quæ ſtricte loquendo talia non ſunt: partim ad ſublevandam Memoriam; ſed præcipue, ut facilius comprehendi poſſint ſub Generibus, et vocibus aptis inſigniri, ſecundum Analogiam et Regulas Generales hujus Artis.

12. Litera *I* poteſt, ubicunque Euphonia poſtulat, addi fini vocis definentis in conſonantem; cujus uſus ſic erit mere Euphonicus, niſi quod neceſſario adſumenda ſit in plurali numero, quia eadem conſonans nequit duplicari ſine vocali ſequenti. Sic etiam, *i* ſervilis præcedit conſonantem finalem, voci Radicali advenientem per flexionem Grammaticam, cum natura vocis non poſtulat aliam vocalem ſignificativam præcedere.

13. Nullam reddo rationem Inſtitutionis Nominum Animæ, Angeli, quæ concreta ſunt Spiritualia, niſi ſimplex Arbitrium; ſunt tamen eorum Nomina ſatis diſtincta ab omnibus aliis vocibus. Deum *O. M.* intra Prædicamenti limites non concludo, ſed ejus Nomen eſt vel ſic efferendum, *sasva*, Cauſa Prima; vel *Ἀναν*, Eas Entium.

14. *S* eſt Litera ſervilis in vocibus numericis, quæ intervenit et diſtinguit inter literas numeri ſignificativas, et literas Grammaticales Flexiones ſignificantes.

15. Cum quælibet vox, ut ingreditur orationem, ſit ſub aliqua Grammaticali Flexione, hinc vox pure Radicalis eſt aliquid abſtractum ab omni reſpectu Grammaticali: verum brevitatis cauſa, appropriavi vocem ex ſolis Radicalibus Literis conſtantem Notionibus Particularum ſignificandis; quas omnes a Radicalibus Notionibus Tabularum derivari, Logicæ eſt Myſterium in hac Arte Revelatum.

16. Cum voces mutilæ, (id eſt, Nomina Partium) incipientes a vocali, ingrediuntur Compoſitionem, ad modum differentiæ (non Generis) adſciſcunt *i* ſervilem, diſtinctionis cauſa, ne fiat confuſio cum aliis vocibus.

17. Accentum quod attinet in hac Lingua, tenendum breviter. In vocibus diſſyllabis penultima eſt longa; in pluriſyllabis eſt brevis, niſi longa fuerit poſitione duarum conſonantium.

18. Ad diſtincte et Euphonice efferendum voces ſeu ſonos hujus Linguæ, hoc unicum requiritur: Accurate diſtinguere ſonos ſeptem vocalium, et Regulam de Accentu jam traditam bene attendere.

19. Vox primitiva pure Radicalis ex Tabulis Concretorum, ſignificat ipſam notionem Concretam, Nominaliter, in caſu recto; eadem ex Tabulis Accidentium, ſignificat Notionem Particulæ, ut dictum.

20. In Compoſitione vox Generica præcedere debet, differentialis ſequi; ut, *Nukbeisam* elephas, non *Beisamnuk*, *Snufgab* adamas, non *Gabsnuf*.

21. Ultimo, conſulo ne diu hæreatur in Præceptis et Regulis contemplandis, ſed ſtatim ad Praxin progrediatur; ex modica enim praxi, facilia admodum invenientur, quæ primo intuitu et non exercitato difficilia videntur. Et quod eſt bene obſervandum, licet hic ſigna non ex mero Arbitrio, ſed cum ratione Inſtituantur; adeoque Memoriæ ſemel impreſſa, Intellectum erudiant de Rerum naturis; tamen in Committendo voces Radicales Memoriæ (quod eſt primum faciendum in ordine ad praxin) parum, vel nihil attendenda eſt Rerum et Signorum Methodus in Tabulis: via enim datur multo compendioſior imprimendi Signa Memoriæ, de qua pauca dicentur capite ſequenti.

CAP. VII.

DE SUBSIDIIS MNEMONICIS.

Rerum et Conceptuum noſtrorum Signa dupliciter in Memoria reponimus et conſervamus. Primo frequenti repetitione inculcando; ita ut Signum auditum vel viſum, frequenti uſu, videatur Res ipſa, licet ab ea diverſiſſimum: Tantum ſcil. valet uſus. Et quidem ſola hæc actuum repetitorum frequentia efficere poteſt ut memoria extempore ſuo officio fungatur, ſine Intellectus ductu, ſive res memorandæ Methodice diſponantur, ſive omni Methodo ſint ſolutæ. Nec facilius acquiritur facilitas et habitus memorandi certum aliquem numerum Rerum maxime methodice diſpoſitarum (hoc eſt, ita ut earum quælibet ſeparatim ſtatim deſignari poſſit, ſine mentis diſcurſu) quam par numerus Rerum non cohærentium reponi poteſt in Memoria; Et Ratio hujus eſt, quod Memoria (ſi liceat Animi Facultates diſtinguere) ſit Facultas omnino Paſſiva et receptiva Idearum, ab aliis animi Potentiis ſibi concreditarum, et ad eam nihil ſpectat, (cum omnino cæca ſit, et omnis cognitionis et judicii expers) quo pacto res ad ipſam deferantur, Arte, an Sorte, quocunque caſu, vel Conſilio; illa agit conſervando et retinendo ſecundum ſuas vires naturales. Et quidem ſi proprie loqui velimus, in Memoria Artificiali, ſive id fiat in Rerum Serie Legitima et naturali, ſive per fictam mentis connexionem, Memoria hic nihil præſtat Artificiale ſupra ſuas vires naturales. Sed totum hoc eſt Rationis opus, educentis ex Memoria Signa vel Res, in ipſa olim receptas et depoſitas.

2. Ratio humana, quæ Scientiæ Compendio quantum poteſt naturaliter ſtudet, Memoriæ imbecilitati opitulatur, operando connexionem Rei Ignotæ cum Re Nota, vel Rei Memorandæ cum re Memorata: in hoc enim ſolo, tota Ars Memoriæ ſita eſt. Et quidem hic eſt naturalis effectus Rationis in homine; videmus enim ſæpiſſime in puero vel ſervo, ſi ipſis mandetur Nomen aliquod incognitum recordari, ſtatim Ratio, quaſi natu-

rali inſtinctu, confugit ad compoſitionem hujus Rei Incognitæ cum alia Cognita affinis ſoni. Hæc autem compoſitio dupliciter fit; vel 1. Ubi eſt neceſſaria, et naturalis Rerum ipſarum connexio; vel 2. Fit per ſolam Mentis Fictionem. Cum compoſitio fit ſecundum Rerum ipſarum Naturas, vel Generalem aliquam Regulam, eo firmior eſt et permanentior: Exempla harum ſunt omnes Compoſitiones et Derivationes in Lingua Rationali, et etiam quæ in aliis Linguis regulariter fiunt. Sic, cum quis didicit primam conjugationem, ex verbo *amo;* poſtea ſi audiat hanc vocem *vigilabunt*, ejus ſignificationem ſtatim intelliget (modo quid ſignificet *vigilo* prius intelligat) quamvis hanc vocem, *vigilabunt*, nunquam antea audiverit. Ratio eſt, quia intelligit per partes, 1. quid ſignificet *vigilo:* 2. Quid terminatio *bunt;* quare etiam partes regulariter compoſitas, intelligit. Exempla compoſitionis Fictæ ſunt voces Radicales ſequentis Lexici, quæ longe facilius in Memoria reponuntur, per fictam hanc connexionem, quam per diſcurſum Logicum; etiamſi ſupponeretur Methodum hanc Notionum ita Logicam et Naturalem eſſe, ut Ratio non minus facile poſſet eas percurrere, quam Literas Alphabeticas recitare. Hoc ſcio videbitur multis valde abſurdum; eſt tamen experientia certiſſimum, et Ratio etiam evidens eſt hæc; Diſcurſus Logicus, eſt via multo longior ad inveniendum Signum, quam connexio hæc ficta; dum enim ego ex diſcurſu logico, quæſiturus ſum vocem hujus Linguæ pro *animositate*, neceſſe eſt Ratio formet omnes hos diſtinctos Actus; eſt Accidens; eſt accidens phyſicum, ſenſitivum, cujus *P* eſt Characteriſt. 2. Eſt ſub genere intermedio *quinto*, et eſt ſpecies *septima* ſub hoc Genere. Quare licet Methodus eſſet ita perſpicua, ut ratio ſine errore poſſet omnia hæc percurrere, tamen hæc eſſet maxima tortura Mentis, tam longum diſcurſum formare pro ſingulis vocibus. At vero, in ficta compoſitione, unicus tantum eſt actus Mentis ad inveniendum ſignum: ſic, *v, g, pop æstimatio;* ego finxi connexionem inter *papam* et *æstimationem:* Cum igitur audio hanc vocem *æstimatio*, ſtatim, etiam ſine ullo diſcurſu, recordor *pope:* Vel ſi audivero *pope*, viciſſim ſtatim recordor *æstimationis*. Et quidem, ſicut parvo labore poſſunt voces Radicales memoriæ mandari per hanc Artem, ſic parvo admodum exercitio, poſſunt homines ſatis expedite communicare, ex vocibus hac ratione in Memoria repoſitis. Fateor, ad recordandum voces extempore, ſine ullo Rationis et judicii ex-

ercitio, habitum requirit; ad quem gignendum in Memoria, nec Ratio vera, nec fiſta multum conducunt, ſed ſola repetitio frequens,ut ſupra.

Qui igitur recordatur per hanc fiſtam connexionem (quæ duarum Rerum tantummodo eſt) ſine ullo reſpeſtu ad res alias, comparari poteſt ei qui quærens duos amicos, reperit eos ſolos in Domo aliqua Ampla: Qui vero recordatur per diſcurſum Logicum, pertranſiendo longam Seriem et Catenam Notionum, illi, qui quærit duos amicos in Templo inter mille alios homines. Vel poſſunt hi comparari duobus hominibus a Palatio Regio Londini, vicum Lambeth ex adverſo petituris; alter Fluvium Tameſin cymba reſta trajicit, alter circuitum facit per pontem. Quare conſulo ei qui voces Radicales Memoriæ committere velit, ut prorſus negligat Methodum Philoſophicam Tabularum, et hac ſola Fiſta Connexione, utpote multo compendioſiore utatur. Hic ponam exemplum 60 Vocum Radicalium, ex quibus judicari poteſt de cæteris.

France, *table.*
Flan*ders*, *aratrum.*
Pom*um*, *admiratio.*
Ad*am*, *succus.*
Ed*mundus*, *cortex.*
U*gly*, *arista.*
Pot, *animositas.*
Fan*um*, *domus.*
Act*æon*, *ostium.*
Fen*s*, *pons.*
Pop*e*, *æstimatio.*
Marb*le*, *circulus.*
Sam*uel*, *efficiens.*
Sin, *pulchrum.*
Bed, *extra.*
Bef*ore*, *ante.*
Bar*bara*, *rectus.*
Gom*orrha*, *lux.*
Dod, *solvere.*
Dog, *aperire.*
God, *ruber.*

Puf, *observare.*
Pud*den*, *attendere.*
Pat*er*, *concipere.*
Grum*ble*, *nutrire.*
Fram*ea*, *filum.*
Fab*ula*, *organum.*
Sib*ylla*, *verum.*
Cob*ler*, *proscribere.*
Cog*an*, *incarcerare.*
Pipe, *diligens.*
Pr*ide*, *affabilitas.*
Pod*ex*, *ira.*
Sand, *materia.*
Bag, *concavitas.*
Pok*et*, *liberalis.*
Ass, *stella.*
Is*e*, *mare.*
Flam*ma*, *panis.*
Top*erie*, *hasta.*
Dok, *spargere.*
Sno, *vesica.*

Foe, *venter.*
Ant, *humor.*
Dik, *pungere.*
Glob*us*, *flavus.*
Tatl*e*, *meditatio.*
Tom, *litera.*
*S*mal, *manus.*
*S*uggar, *Commune.*
Dig, *percutere.*
Sem, *incipere.*
Pur*gatorium*, *simulare.*
Prin, *ferus.*
Beg, *extremum.*
Game, *dulce.*
Frin*ge*, *Cathedra.*
Fæm*ina*, theca.
*S*id*ney*, *honestus.*
Gab*ulum*, *durum.*

Poterit quilibet ingenioſus, bis vel ter relegendo has voces, eas ita Memoriæ committere, ut cogitatione facta de una, ſtatim altera memoriæ ſuccurrat. Sic cum ego audio vocem *sin*, ſtatim recordor *pulchritudinis*; et vice verſa.

Quamobrem ex hac inſtantia evidens ſatis videtur, facili negotio poſſe omnes voces Radicales hujus Linguæ, unius Septimanæ ſpatio, in Memoria reponi; et ſi altera ad Praxin accidat, poterit ſtructura orationis ex his fieri, et mutua Communicatio inter Homines, non minus quam in aliis Linguis: Et hoc eſt quod ab hominibus habetur fabuloſum, et impoſſibile, ideoque incredibile.

CAP. VIII.

DE FLEXIONIBUS GRAMMATICALIBUS.

Hactenus explicatio Lexici et vocum Radicalium; ſequitur quædam dicamus de Flexionibus Grammaticis, in derivatione, Compoſitione, et Structura orationis.

Docent Grammatici *octo* eſſe partes orationis: Logici melius, *duas* tantum ſtatuunt. Ego vero, ſecundum libertatem Philoſophandi quam hic mihi arrogavi, *unicam* tantum Orationis partem, Primariam, et proprie ſic

dictam agnosco; *Nomen* scil. Cæteras vero vulgo sic habitas, esse inter Flexiones, et Casus hujus, numerandas. Ratio assertionis hæc est; omne *Ens* quodcunque necessario primo locum habet in linea prædicamentali; omnis autem Notio prædicamentalis est Nomen. Quare sequetur, Verbum esse tantum Casum, seu Flexionem Nominis, non minus quam aliæ partes a Grammaticis enumeratæ.

Res hæc extra contraversiam erit, si evincam a Logicis unicum istud verbum Substantivum (Sum) derivari a Nomine prædicamentali: Quod conabor facere, 1. Negative, ostendendo *sum* non derivari ab *Ente*. 2. Positive, ostendendo veram verbi Substantivi originem.

Dico primo, Verbum Substantivum, quod copula est in omni Propositione, non derivatur ab *Ente* (non nego posse derivari verbum ab *Ente*, non minus quam a Notionibus *Substantiæ*, et *Accidentis;* verum hoc verbum longe aliud est a verbo Substantivo) quod ex resolutione harum duarum Propositionum demonstro. 1. *Homo est ens*. 2. *Homo est*. Si quis admittat primam propositionem esse legitimam, et constantem tribus terminis distinctis, Subjecto, Copula, et prædicato (quæ partes sunt essentiales omnis propositionis) habeo intentum. Si dicatur hanc prop. esse Tautolog. et vocem *Ens* redundare, et quod hæc *Homo est*, significet totum quod *Homo est Ens;* Insto, vel hæc nulla est Propositio, vel necessario est resolvenda in *Tres* Terminos Mentales, licet hic *duabus* vocibus expressos. Quare, hæ duæ voces vel non significant ad modum Propositionis, vel resolvenda est *est* in *duos* terminos, *copulam* scil. et *prædicatum*. Et sic habeo quod volo; *copulam* propositionis esse aliquid distinctum a Notione *Entis*.

2. Positive ostendo veram Verbi substantivi originem. Verbum, fatentibus omnibus, nihil est aliud, quam pars *Formalis* propositionis, id est, Signum Actus Mentis *Judicativi*. Cum vero Judicium dupliciter feratur de Objecto, vel per assensum vel dissensum, (qui actus vocibus expressi dicuntur *affirmatio* et *negatio*) hinc sequitur duplex esse Verbum Substantivum, respondens duplici Actui Mentis Judicativo; quæ duo verba sunt casus Notionum *affirmare*, et *negare*, quæ secundum leges prædicamentales primo concipienda sunt Nominaliter. Et bene hic tenendum est, Verbum (qua tale) esse meram copulam, et Signum Actus Judicativi; et Tempus esse quid extrinsecum ejus significationi. Non male igitur supponi possunt

hæ voces (*ita*) et (*non*) pro propriis Verbis Logicis, et Signis actuum Judicativorum; quæ voces, etiam ſecundum uſum vulgarem loquendi, ponuntur verbaliter. Ut, an Petrus eſt in domo? R. *ita, non.* id eſt, Petrus eſt in domo, Petrus non eſt in domo: vel magis Logice, ſic. Petrus *ita* in domo; Petrus *non* in domo. Nam obſervetur has voces non ſignificare adverbialiter, eo modo quo *docte, male, bene.* Sic enim voces *affirmative, negative,* ſunt adverbia notionum *affirmare* et *negare.* Sed ſignificant Judicium copulative: Et Ubicunque inveniuntur in oratione, ſignificant ad modum copulæ inter ſubjectum et prædicatum, licet abſurde ex vulgari uſu, hæc vox *est* cum iis jungatur in propoſitione. Imo in propoſitionibus negativis eſt implicatio in ipſis terminis, dum nota *affirmandi* cum nota *negandi* jungitur. Homo *non est* lapis; quaſi homo *non ita* lapis: Saltem nota *affirmationis* eſt redundans. Duo igitur ſunt verba, *ita* et *non.* Cumque Verbum Negativum non ingrediatur propoſitionem Affirmativam, eſt non minus abſurdum ut Verbum Affirmativum ingrediatur propoſitionem Negativam.

Ex dictis etiam patet, quam abſurda ſit eorum opinio, qui docent verbum Subſtantivum non eſſe neceſſarium ad faciendum propoſitionem: Pari enim ratione docere poſſunt, Subjectum vel Prædicatum non eſſe neceſſaria; eſt enim pars Eſſentialis et maxime Principalis propoſitionis. Hoc quidem verum eſt, poſſe Copulam, compendii gratia includi in eadem voce cum Prædicato, vel et Prædicato et Subjecto: *v, g,* hæc vox *amamus,* continet in ſe 4 diſtinctas Notiones; id eſt, *nos, præsenti tempori, sumus,* (vel potius *ita*) *amantes.*

Inſuper ex dictis infero, nullam eſſe Negationem in terminis ſimplicibus; omnis enim Negatio eſt Actus Mentis, ſeparans aliquid ab aliquo. Quare, maxima pars Doctrinæ Logicæ, quæ tractat de æquipollentia et converſione propoſitionum, eſt vana, inutilis, et abſurda. Quis Bubulcus non docebit Logicum ſic enuntiantem, *Homo est non lapis,* ſignificantius dicere *homo non est lapis?* Nulla igitur eſt propoſitio terminis negativis conſtans, cujus Negatio, per reſolutionem Logicam, non reducatur ad Copulam.

Hoc igitur ſtabilito, quod unica tantum ſit Pars orationis principalis; tot dici poſſunt minus principales, quot Grammaticæ Flexiones, et variationes; quarum numerus poteſt eſſe vel major, vel minor, prout quis ſta-

tuat pluribus vel paucioribus Particulis Auxiliaribus, in ſtructura Orationis uti. Hinc quædam Linguæ, pro circumſtantiis temporis, modorum, perſonarum, gradibus comparationis, utuntur vocibus diſtinctis et ſeparatis; aliæ, has circumſtantias terminationum varietate diſtinguunt. Quos autem diverſos reſpectus et circumſtantias ego hic admiſerim terminationum varietate ſignificari, ex Tabula Grammaticalium Flexionum patet; in quibus explicandis non inſiſtam cum ſatis notæ ſint ex exemplis.

Quod de numero Notionum Radicalium notavi, ni. quod viam mediam inter duo extrema elegerim, hoc idem facio in Grammaticis Flexionibus; non enim toties vario vocem Terminationibus diſtinctis, ad diverſos modos et circumſtantias exprimendum, quoties compendii cauſa per Regulas certas potuiſſem; cum non ſit neceſſarium ſic facere, et memoriam valde onerarret, confuſionem præterea pariens in Signis. Mirum eſt quot varias Terminationes non neceſſarias quædam Linguæ admittant.

Nec. 2. Ita ſtricte Logicas Regulas ſequor, ut eadem rigiditas obſervetur in compoſitione et ſtructura Orationis, quæ in Analyſi; hoc eſt, ut omnes diſtinctæ partes diſtinctis vocibus exprimantur: Certum enim mihi videtur, omnem Grammaticam Flexionem diſtinctum aliquid ſuperaddere Radicali Notioni; qui reſpectus diſtinctis et ſeparatis vocibus exprimi poſſunt, niſi aliter fieret compendii cauſa. Quare ut dixi, media via incedo, præcipuas modales Variationes Terminationum varietate diſtinguens, alias vero vocibus ſeparatis. Sicut igitur nulla vox Primitiva admittenda eſt in hac Lingua niſi quæ in Tabulis habetur, ſic nulla Derivativa, niſi quæ ſecundum has Grammaticas Flexiones fit. Non neceſſarium eſt moneam, non omnem Notionem Primitivam capacem eſſe omnium harum Flexionum. Hoc tamen obſervatu dignum eſt; hanc Linguam eſſe longe copioſiorem in Derivationibus et Compoſitionibus quam quælibet alia Lingua; variabilitas enim in Notione eſt Regula variandi vocem; Cum Derivationes Linguarum vulgarium coarctentur inter breves gyros Regularum Grammaticalium. Quarum nulla alia ratio reddi poteſt, niſi placitum et Arbitrium Majorum noſtrorum; idque mero Caſu factum: Contra quem receptum uſum loquendi, ſi quis loquatur ſecundum Regulas Logicas, Barbarus habebitur; Quales eſſent hujuſmodi phraſes, *ignifica, luminifica* candelam; *inignifica, inluminifica,* pro *extingue.* Sic non licet dicere, *tenebile,*

dabile, scribibile, ridax, legax, ocululus, manulus, pedulus; Cum tamen hæ notiones, et hujuſmodi feræ infinitæ, poſtulent eandem Flexionem cum aliis, quam Linguarum Analogia iis contra omnem Rationem denegat.

Notabilis eſt hæc differentia (inter plurimas alias) inter hanc Linguam et vulgares: In vulgaribus, habent Regulas quas vocant *Elegantiæ*, et *ornatus*, quæ ſæpiſſime potius dicendæ ſunt *Absurditatis*. Ita in malum omne ſumus nos depravati homines proni, et in vetita ruimus; ut non ſolum pro maximis corporis noſtri ornamentis habeamus, quæ corporis ſanitati, et naturæ ipſi ſæpiſſime adverſantur, ſed etiam Animas noſtras, abſurdis Figmentis, pro veris Scientiæ Dotibus corrumpimus. In hac lingua omnis Elegantia in hoc ſita eſt, ut λογος externus ſit interno perfecte conformis, ita, ut ſermo ſit Analyſis Logica Conceptuum noſtrorum: Et nemo hic poteſt ornate et eleganter loqui, et orationem conſtruere, niſi bonus Logicus, qui eandem in ſuas partes noverit reſolvere. Nec tamen hinc ſequitur, neminem poſſe ſenſa ſua hac Lingua exprimere, niſi Logicæ Artis peritus: poteſt enim quis Logicæ (Artis) rudis ſenſa ſua hac lingua modo intelligibili patefacere; quod ſatis manifeſtum eſt ex aliis Linguis. Poteſt enim Ruſticus, ſenſa ſua exprimere de Rebus ipſi notis, ita ut ab aliis intelligatur: at vero Logicus plurimas abſurditates in ejus ſermone inveniet. Sed e contra, hoc bene ſequitur; Ea quæ Logicus profert, facilia intellectu omnibus futura, ni. ſi materia ſermonis ſit ipſis nota: Et hoc ſatis etiam manifeſtum eſt ex Linguis vulgaribus, in quibus multo facilius eſt intelligere quam loqui; quod multo magis hic locum habet.

Hic inſuper notari velim, quod Artis Logicæ ignarus, dum hac Lingua utitur, aptus erit Phraſiologiam ſuæ linguæ ſequi, quæ ſæpius abſurda et inſignificans eſt. Homines enim, priuſquam præceptis Logicis imbuantur, loquuntur in multis more pſittacorum: Formulas quaſdam traditione acceperunt, quibus utendi libertate ſublata, obmuteſcent. Si enim inhiberetur Ruſticus Anglus uti his phraſibus, *he must be born with; put out the candle;* mutis ſtabit. Ratio eſt, quod has phraſes ex conſuetudine quadam addidicit ad tales conceptus exprimendos, Logicam vero Analyſin horum complexorum conceptuum perficere in mente nequit: Et quidem nonnulli ſunt reſpectus Rerum, et concurſus Notionum, quos Logice exprimere eſt perdifficile: Imo faſtigium eſt acuminis Logici, poſſe bene

Animi ſenſa hac Lingua exprimere. Quamobrem ad manuducendum Logicæ Artis ignaros in hanc linguam (id eſt, in veram praxin Logicæ) facienda eſt collectio quarundam Formularum ex Linguis vulgaribus, quæ Logice reſolvendæ ſunt per voces hujus Linguæ.

Hic etiam notatu dignum eſt, bene admitti poſſe variandi Formulas ad eandem Rem exprimendam in hac Lingua, non minus quam in aliis; ſicut enim 4. et 4. vel 5. et 3. vel 2. et 6. faciunt octo, ſic ex diverſis ſimplicibus Notionibus poteſt idem ſenſus fieri.

Compoſitio in hac Lingua eſt duarum vel plurium dictionum in unam coalitio, majoris compendii cauſa in conceptibus noſtris patefaciendis et communicandis. Atque hoc fieri poteſt pro re nata, quodlibet cum quolibet componendo; modo termini ſimplices eodem modo ſignificent in Compoſitione quo extra compoſitionem. Cum enim rerum habitudines et Reſpectus mutui et Differentiæ ita infinite varient, nec ad hæc ſingula ſignificanda dari poteſt vox ſimplex primitiva; et omnes Animi conceptus ex paucis primis vocibus ſine ulla variatione exprimere impoſſibile eſſet ſine longiſſimis periphraſibus; ideo compendii cauſa neceſſario admittendæ ſunt Derivationes et Compoſitiones. Et hic tenendum eſt, illas Notiones quas Derivativas appellamus, ſi ſtricte loqui velimus, eſſe revera compoſitas; diſtinctionem tamen facimus, quod illæ per additionem mutilæ Terminationis, vel etiam Præpoſitionis, fiant; hæ vero ex integris vocibus ſeparatim ſignificantibus. *Filiolus* enim eſt vox compoſita, ex *filio* et *parvo*; *durior* ex *duro* et *magis*, logice loquendo: appellantur tamen hæ voces Derivativæ, quia alter terminus compoſitionis mutila terminatione exprimitur.

Hinc eſt quod eo perfectior habeatur Lingua aliqua, quanto capaciores ſint ejus voces Derivationis et Compoſitionis; ideoque Lingua Græca præ omnibus nobis notis præfertur, propter verborum copiam ex Derivatione et Compoſitione, eaque eſt ſola Lingua quam adhuc habuerunt Philoſophi idoneam ad Artes docendas: quod unicum Argumentum (ſepoſita fide Hiſtorica) Græcos Gentem doctam et Philoſophiæ primos cultores arguit. Et hodie obſervare licet, Gentes cultiores Compoſitionis et Derivationis Artem indies augere in ſuis Linguis vernaculis; ſic Angli *self-denial*, *fellow-feeling*, et infinita fere ſimilia quotidie excogitantur. Concludo igitur,

licere in hac Lingua quodlibet cum quolibet componere, modo ſignificanter et ad rem fiat; ſecus abſurditas committitur.

Not. denique, Compoſitionem quod attinet; quaſdam eſſe Notiones communes, quæ ſæpiſſime Compoſitionem ingredientes in multis Linguis, per modum mutilarum Particularum, vocibus cum quibus componuntur, præponuntur, et ideo verius dicendæ ſunt derivativæ quam Compoſitæ: hujuſmodi ſunt Latine, *re, con, am, se, in, ad, ab,* &c. quæ in hac Lingua Leges Compoſitionis ſervant; hoc eſt, tota vox ſimplex Compoſitionem ingreditur.

CAP. IX.

DE SYNTAXI.

STRUCTURA orationis illi qui ſuos conceptus reſolvere poteſt, facilis admodum eſt; pro qua hæc Regula generalis teneatur. *Idem sit ordo Signorum et Orationis, qui Mentis Conceptuum seu Actuum Rationis.* Mirum eſt, quanta ſit tranſpoſitio vocum de ſuis locis propriis et naturalibus per hyſteron-proteron in quibuſdam Linguis, præcipue Latina; adeo ut ſæpiſſime eveniat, hominem omnia verba ſingulatim ſumpta ſatis intelligentem, ſenſum tamen integræ orationis, ſine longo diſcurſu capere non poſſe. Cui rei procul dubio occaſionem præcipue dedit Numerus, qui ab Oratoribus in oratione Soluta obſervatur, non minus quam in Ligata, quique ad Regulas Artis forte reduci poterit, non minus quam Poeticus. Verum in hac Lingua non eſt ferendum, ut aures demulceantur cum animi jactura, quod raro admodum aliter fit, præcipue a Poetis et Fictionum Amatoriarum Scriptoribus, cui generi hominum, qui nihil aliud quam ſpumam turbidæ Mentis ebullire ſolent, fateor me parum favere: Cenſeo enim hos Peſtes Reipublicæ perniciofiſſimas; nam Mentes teneras Juvenum, honeſtis Artium præceptis et Virtutis praxi jam imbuendas, vitiant et polluunt. Utcunque, aliud remedium hic inventum eſt ad numerorum concentum

harmonicum ſupplendum, abſque orationis ſtructuræ Logicæ perturbatione; ni. interpoſitio ſervilis literæ *i* quoties Euphonia poſtulat.

Regulæ particulares ſunt. Primo, *Substantivum præcedat Adjectivum*; ſic, *fnf goma, charta alba, fef groma, atramentum nigrum.*

2. *Agens præcedat verbum activum, patiens sequatur*; ut *sunilli ponesi Sava, omnes amant Deum; Sava ponesi lalli sunilli, Deus amat nos omnes.*

3. *Adverbium sequitur verbum*; ut, *lal trim sef trinesv simai, ego non possum scribere bene; lelil spndesi pipai, ille laborat diligenter.*

4. Modus ille loquendi qui Latinis, *Ablativi absolute positi* dicitur, qui Græcis in Genitivo caſu ponuntur, Angli vero Conſtructionem hanc per voces, *having, being*, exprimunt, eſt loquendi compendium quod in integram propoſitionem reſolvi poteſt; verum propter frequentem uſum admittendum eſt hoc compendium: Cumque hæc Conſtructio ſemper fere reſolvatur in Tempus, per voces *cum, dum, post*, &c. ideo particula temporis erit hujus phraſis ſignificativa; ut, *dan lollir tino, lel softinesa shvmdan; shvbdan lel slemesa tinesv*, his dictis, *siluit aliquandiu; postea vero progressus est loqui, seu continuavit sermonem: dan lolir samo lelil, sofslemesa spndesv, hoc facto cessavit ab opere, vel operando: dan lal trineso, lelil bredprndesa, me scribente ille ingressus est.* Notiones Temporis, ut Philoſophis difficiles intellectu, ſic Grammaticis expreſſu. Hæc conſtructio Anglice ſæpe dicit reſpectum ad *causam*, et tunc per particulam cauſæ reddenda eſt; ut, *My hand being weary I cannot write longer*; id eſt, *sas smv lala spngo, lal trim sef trineso danibai*, vel *svndan*. Multis modis poſſunt hujuſmodi phraſes variari, et omnes ſignificare et Logice et Emphatice.

5. *Nomen Adjectivum et Genitivus casus, per strictam Analysin Logicam, eandem constituunt Notionem, seu Nominis Radicalis Flexionem, et ei superaddunt respectum pertinentiæ.* Hoc clarius apparebit comparando phraſes diverſarum Linguarum; Lingua Hebræa exprimit Flexionem, ſeu caſum Adjectivum (jam enim bene advertendum, quod omnes variationes Notionis Radicalis, ſive verbaliter, adverbialiter, adjective, &c. ſunt vere Caſus, ſeu Flexiones Nominis Radicalis) maxime proprie ſic dictum, per Genitivum Caſum, vel ſaltem per conſtructionem huic æquivalentem; ut, *homo albedinis, homo fortitudinis*; qua phraſi etiam aliquando Angli utuntur; *a man of might, a place of much Light.* Sic viciſſim quædam Linguæ Geni-

tivum casum propriissime sic dictum a Grammaticis, adjective exprimunt; ut, Anglice, *God's house*, John's *Father*, William's *Son*, *my hand*, *his foot*; sic Latini; *manus mea*, *pes tuus:* Ubi pronomina quæ pro Nominibus Substantivis supponuntur, redduntur Adjective. In omnibus quibus, Flexio Adjectiva, seu Genitivus Casus, significat Relationem pertinentiæ, possessionis, seu habitionis; Verum ego has Grammaticationes ut distinctas admisi, majoris compendii et claritatis causa. Perdifficile quidem est Regulas certas præscribere, quando Flexio Adjectiva, quando vero genitiva sit utenda; nam ut dixi, in stricta Logica Analysi, sunt eadem omnino flexio seu respectus: Hoc tamen hic offero. Utimur Flexione Genitiva (quæ exprimitur per particulam *sny* a Radice *pertinere*) cum loquimur de duobus notionibus, ita, ut de una earum conceptus fiat in statu abstracto, vel quasi abstracto, separato, et distincto ab alia; ut, *albedo hujus parietis*, *Lux hujus diei*, manus Petri; Adjectiva vero, cum duas res concipimus in statu Concreto, composito, et unito; ut *paries albus*, *lux diurna*, *membra humana*.

6. Admitto Compendii causa distinctionem *personæ*, et *rei*, fieri per terminationes in eadem voce cum Nomine Adjectivo, sicut etiam fit in multis aliis Linguis; ut, *Sunirri tim samo sam*, vel, *sod Sava*, *omnia facta sunt a Deo*. *Simalli sodesi simai*, *boni homines bene faciunt*.

7. Constructio Ablativi et Dativi casus, seu quod idem est, particulæ *ab* et *ad* sunt significativæ relationis motus, ni. a termino, et ad terminum; id est, *actionis* et *passionis;* ideo optimo jure derivandæ sunt hæ particulæ a suis propriis Radicibus; ut, *Fef lola trinosa* sod *lal*, *hic liber scriptus erat* a *me*. *Lelil prndesa* sod *fansava*, *stofdadu*, *ille venit* a *templo*, *foro*. *Sava spnbesi simarri suna* shod *lalli*, *Deus dat* nobis *omnia bona*.

8. Verborum impersonalium quædam redduntur per adjectivum *Rei;* qualia sunt hæc: *oportet*, *convenit*, &c. Sic, *Tim sedar sunilli shnpesu*, *oportet omnes homines mori*. Hujusmodi vero, *pluit*, *coruscat*, &c. sic reddenda sunt; *nan nanesi*, *ignis coruscat; nnn nnnesi*, *ventus spirat; nen nenesi*, *pluvia pluit*.

In propositionibus constantibus duobus Nominibus, ubi nullus habetur explicitus respectus ad differentiam temporis (quod licet non observatum sæpissime evenit, ut in propositionibus vulgo dictis æternæ veritatis, magis proprie, necessariæ connexionis) tunc Subjectum et prædicatum copulantur per duo verba substantiva *tim* et *trim*, pro ratione qualitatis propositionis

affirmativa vel negativa; ut, *Sava tim sima, Deus est bonus; Tvsu tim tvma, voluntas est libera; sabtrin lola trim nvf, hæc penna non est lapis; Nam trim nom, Cœlum non est terra; lelil trim pono sod sava, ille non est amatus a Deo.* Cum vero temporis differentia innuitur, reddenda eſt per flexionem verbi temporis *dan*, ſic; *Petrus danesa bred fan, Petrus fuit in domo.* Verum, ſi addatur particula temporis differentiæ ſignificativa ſeparatim, redundaret verbum temporis; ut, Petrus *tim bred fan lola svbdangom*, non, *Petrus danesa bred fan lola svbdangom, Petrus fuit in hac domo heri:* Sic, *Petrus tim bred fan lola loldan* vel *dlandan*, non, *Petrus danesi bred fan lola dlandan.*

9. Tenendum, in omnibus propoſitionibus affirmativis, ubi eſt verbum adjectivum (id eſt, conjugatum per flexiones temporis ſignificativas) omitti verbum ſubſtantivum, *tim*, compendii cauſa; in negativis vero ſemper exprimitur verbum *trim*.

Hic non addam plures Regulas de ſtructura orationis; Logicæ enim peritus ſatis ſciet ex paucis hic dictis, et capite ſequente dicendis de particulis, quomodo connectere Notiones ſuas in aliis caſibus: alii vero facile acquirent Logicæ praxin, ex praxi hujus Artis.

CAP. X.

DE PARTICULIS.

Divina ſorte magis quam Humana Arte ductus, feliciſſimo Auſpicio, clavem hujus Inventionis primo reperi, propter cujus defectum, viri Docti, qui ante me hujus Artis Fores ſedulo pulſabant, nequibant intrare. Per hanc Clavem intelligo Notiones vulgo *Particulas* vocatas, quæ ita ſe habent ad Orationem ut anima ad hominem, vel Tendines Nervi et ligamenta ad Corpus, vel Cæmentum ad Ædificium. Subductis enim Particulis ex Oratione, quid remanet? Niſi mortuum Cadaver ſine forma hominis? Vel ſoluta membra ſine forma corporis; vel cumulus lapidum

fine forma domus? Et ficut Particulæ Formalem et Principaliorem partem Orationis conftituunt, adeoque difficillimam (tota enim praxis Artis Logicæ et Grammaticæ in iis recte utendis fita eft) fic etiam partem orationis maximam faciunt. Quare, dico harum refolutionem et reductionem fub regulis Artis, Inventionis Clavem.

Memini felectum numerum virorum Doctiffimorum in Academia Oxonienfi, quibus primo Inventionem hanc communicavi, dum viderent Schema totius Artis in unica pagella exhibitum, Characteribus additis, brevitatem hanc incredibilem omnes mirabantur; præcipue illam partem quæ Particulas complectebatur. Ex his vir clariff. Sethus Ward *T. D.* et Aftronomiæ Profeffor in eadem Academia, poftea mihi communicavit Tabulas Notionum Philofophicas, quas Artem hanc intendens ipfe compofuerat: et licet ad Particulas explicandas, et ftructuram orationis ex iis nondum defcenderat, probabile tamen admodum eft, quod labores ejus temporis progreffu, ferius aut citius in publicam lucem Artem hanc produxiffent. Poftea vero mihi nunciatum eft de aliorum propofitis hac in re; circa enim idem tempus, prodiit Liber Anglice, fub Nomine Characteris Univerfalis, qui revera nihil aliud novi docebat, quam fcribere vel loqui Anglice modo multo difficiliore quam vulgo fieri folet. Ingeniofius multo cogitata fua de hac Arte propofuerat Franfifcus Lodwick, Civis Londinenfis; verum huic Sufcepto impar, propterea quod Artis expers, et extra Scholas natus.

Primus igitur meus conatus in hac Arte longe alius erat a Methodo hic exhibita, præcipue in Particularum materia. Primo enim omnes Notiones Primitivas in duas Claffes dividebam, Materiales fcil. et Formales: Nomina et Verba et eorum cafus partes materiales appellabam, eafque Characteribus Majufculis notabam: Formales feu Particulas, punctulis minufculis circum Characterem Majufculum nominis vel verbi, defignabam; eodem modo quo folent in Arte Brachygraphiæ, vocales per puncta notare circa Characterem confonantis. Et quidem hic modus maximum compendium fcribendi docebat; ficut enim in vulgaribus Literis, quilibet Character fignificat partem vocis unius, forte *quartam*, *quintam*, *sextam*, *&c.* hic, minimum punctulum fignificabat integram Notionem; *v g*, hæc fententia *ego amo illum valde bene*, fcribebatur unico Characere Majufculo pro verbo *amo;* cæteræ particulæ per puncta circum hunc Characterem affixa figni-

ficabantur. Sic hæc ſententia: *Sed quoniam nos sæpe molestamur ab illis, ideo nos quoque illos aliquando molestabimus.* Tota hæc ſententia duobus Characteribus Majuſculis ſcribebatur, cæteris vocibus per punctula circa Characterem affixa, expreſſis.

Verum poſtea, cum percipiebam multas notiones quibus pro particulis et primitive utebar (jam enim collectionem feceram circiter fere 300 particularum) eſſe vel revera compoſitas; quales ſunt adverbia temporis, loci, conjunctiones cauſales; ut, *hic, illic, ubique, aliquando, quando, sæpe, quare, ideo, &c.* Alias vero nihil eſſe aliud quam adverbia modi, quales erant *bene, male, facile, &c.* Ideo Particularum numerum (quarum tot primo utebar, propter majus ſcribendi compendium) ex Analyſi Logica indies minuebam.

Tandem vero mihi affulſit clarior lux; accuratius enim examinando omnium Notionum Analyſin Logicam, percepi nullam eſſe Particulam quæ non derivetur a Nomine aliquo Prædicamentali, et omnes Particulas eſſe vere Caſus, ſeu Modos Notionum Nominalium. Jamque inter hæc duo hærebam, an ſcriptionis compendium negligerem; an vero admitterem pro primitivis, quæ revera et Logice talia non erant; quod contra principalem hujus Artis ſcopum omnino erat. Quamobrem cum hæc duo conciliare nequibam, concluſi Logicam inſtitutionem Nominum Rerum, utilitati Brachygraphicæ longe anteponendam; ſicque omnes Particulas ex ordine Radicalium miſſas feci. Cumque jam reſpicio quot et quam varias Methodos et modos in hac Arte pertranſiverim, quorum omnia longum eſſet recenſere, experientia propria teſtatur, verum eſſe quod vulgo dicitur, Nihil ſimul natum et perfectum, et prima Artium lineamenta eſſe admodum rudia.

Tenendum me *sex* particulas Pronominales retinuiſſe, non neceſſitatis ſed compendii cauſa, quia aliter ſine longa periphraſi communicare non poſſumus; ponuntur enim hæ loco Nominum, ideoque Pronomina recte appellantur. Quod non ſint abſolute neceſſaria et primitiva, patet, quod quævis propoſitio illis conſtans reſolvi poteſt per Nomina ipſa pro quibus hæc ſupponuntur. Sic *ego* ſcribo; id eſt, *Georgius Dalgarno* ſcribit: dum Petrum alloquor; *tu* ſcripſiſti; id eſt, *Petrus* ſcripſit; dum Petrum alloquor de tertio aliquo, Johanne; *ille* ſcripſit; id eſt, *Johannes* ſcripſit.

Hic bene obſervandum eſt, præcipuum quod reddit Linguas vulgares difficiles, eſt maxima ambiguitas particularum, ut videre licet apud Autores qui hoc ſubjectum tractarunt in variis Linguis: non enim ſufficit ut aliquis Linguas vulgares intelligat, ut ſignificationem omnium vocabulorum principalium ſeparatim intelligat; Particulæ enim tam multiplices et incertæ ſunt ſignificationis, ut nequeant Regulæ certæ dari ad earum ſignificationem determinandam, ſed hoc ex ſolo uſu et longa experientia eſt colligendum.

Judicia virorum doctorum varie expertus ſum de modo inſtituendi voces ad *particularum* Notiones ſignificandas: Quibuſdam magis placebat modus ille prior, quo certum numerum Particularum pro Primitivis conſtituebam, a Notionibus Nominum in Tabulis poſitis diſtinctas. Ratio eorum erat; Primo, quod cum Particulæ ſint notiones frequentis uſus, voces iis ſignificandis impoſitæ debent eſſe quantum fieri poteſt compendioſæ. Secundo videbatur illis in quibuſdam Particulis quæ complexæ ſunt ſignificationis, ut vox longior, ſic etiam obſcurior: ut in vocibus, *sunsum* vel *sunshun*, unuſquiſque; *sufshun*, vel *shumsuf*, fere. Hæ enim voces ſunt diſſyllabæ, nec tamen totum ſenſum harum Notionum perfecte et plene exprimunt. Alii contra mecum hic ſentiebant, quod cum notiones omnes Particularum ſint ex natura Rei ipſius derivativæ a notionibus radicalibus Nominum (quod contra opinantes negare nequibant) ideo conſentaneum eſſe, ut ab iis formentur, et omnino abſurdum eſſe in Lingua Philoſophica, admittere aliquam Notionem quæ non originaliter ſit Nomen (vel ſaltem pro Nomine poſitum) et capax omnium flexionum Grammaticalium; quarum hæc eſt una, vocis ſcil. Radicalis mutilatio, qua denotatur vocem talem non ſignificare partem aliquam materialem propoſitionis, ſed formalem; id eſt, varios modos quibus intellectus notiones jungit in textura orationis, et varias rerum circumſtantias ſitus, poſitionis, temporis, loci, &c. Quare hæ præcipue derivantur a notionibus tranſcendentibus et communioribus, et accidentibus ſub Genere Accidentis Mathematici contentis. Præterea difficile eſt admodum determinare ſignificationem harum vocum ſine ambiguitate aliter: Imo omnino determinari nequeunt niſi ex notionibus Nominalibus ad quas dicunt eſſentialem reſpectum; quare æquiſſimum eſt ſicut quoad *Rem* derivantur ab illis, ſic etiam quoad *Signum*. Nec

minori cum ratione derivantur, *et*, *ab*, *ad*, *per*, *sine*, &c. a radicalibus notionibus a quibus earum ſignificatio determinatur, quam *bene*, *male*, *docte*, *&c.* a ſuis Primitivis.

Ad illud autem quod objicitur, voces eſſe longas nimis; Reſp. Satis ſunt breves quæ pro particulis primitivis ſupponuntur; ſecundum Regulam hujus Artis, *Vox Tabulæ Accidentis in oratione posita sine aliqua terminali litera addita est Particula.* Quod autem quædam particulæ ſint propter compoſitionem longiores; quid hoc refert, quod aliquando ſint diſſyllabæ, triſyllabæ, quadriſyllabæ, modo ſatis diſtinguantur ab aliis vocibus? Sunt enim quædam Particulæ valde complexæ ſignificationis, et cum capacitas Compoſitionis ſit maxima excellentia in hac Lingua, abſurdum omnino eſſet denegare Compoſitionem vocibus ſignificantibus Notiones maxime complexæ naturæ; quales ſunt quædam Particulæ. Videmus enim in omnibus Linguis, Logicam Naturalem hoc dictaſſe hominibus, Complexis Notionibus Particularum ſignificandis, voces complexas impoſuiſſe: ut quandoquidem, nihilominus, unuſquiſque; Anglice, *nevertheless*, *whensoever*, *&c.* Quare hæc abbreviatura vocum ad Brachygraphiam pertinet, nec eſt ejus conſideratio admittenda in Lingua Philoſophica, niſi ſecundario. Ad illud iterum, quod hæ voces aliquando non ſatis explicite dicant totam Notionem et conceptum Mentis; Reſp. Fateor, aliquando ſic eſt; non eſt enim expediens ad compendium et facilitatem communicationis, ut Notiones omnes noſtras Simplices per rigoroſam Analyſin Logicam longa periphraſi ſemper explicemus. Sic vox *unusquisque*, ſignificat diſtincte omnes diſtributive cum reſpectu ad ſingulas partes unatim; nimis autem eſſet laborioſum omnia hæc exprimere, in omni oratione ubi vox *unusquisque* occurrit: Quare vocem ex radicalibus *totius* et *partis*, vel *totius* et *unius* componimus, et ſupponimus pro hac complexa Notione, quod multo magis eſt rationabile quam vocem ex ſimplici inſtituto ſupponere. Concludo igitur, ſicut Notiones Particularum derivantur a Notionibus Prædicamentalibus, ſic etiam debent earum voces: Quod autem ſic deriventur, abunde patet ex ulteriore earum reſolutione. Unico exemplo inſtabo, de Particulis *tam* et *quam*. Hæc penna eſt *tam* longa *quam* illa; id eſt, hæ duæ pennæ comparatæ ſunt *æqualis* longitudinis, vel *æque* longæ. Hæc penna eſt longior, vel magis longa quam illa; id eſt, Hæ pennæ comparatæ, hæc eſt longior, ſeu *magis* longa.

Ex his cenſeo abunde ſatisfactum eſſe iis qui reſolutionem Logicam orationis perficere poſſunt, omnem Particulam derivandam eſſe a Notione Prædicamentali, et propterea facile erit illis, intelligere et recordari voces in ſequentibus Tabulis, Particularum ſignificativas: Rudiores vero quod attinet, voces Particularum ex Tabulis addiſcant, tanquam eſſent ex mero inſtituto; idem enim ſignum poteſt eſſe reſpectu unius Rationale, reſpectu alterius qui rationem inſtitutionis non apprehendit, ſimpliciter, arbitrarium.

Particularum Doctrinam abſolvam, reſolvendo quaſdam Particulas et Conſtructiones difficiliores.

Totum Corpus, caput, terra, &c. abſurde, pro, *totum* ſeu *totietas, corporis, capitis, terræ,* &c. Non enim dicimus, *partiale corpus, caput,* &c. ſed, *pars corporis, capitis, terræ;* et eadem eſt conſtructionis ratio utrobique; vel ſi alterum horum verborum reddendum eſſet *Adjective* (nam ſupra docui Genitivam et Adjectivam Flexionem eſſe eandem) non *totum* et *pars,* ſed *corpus, caput, terra,* adjective flectenda eſſent. Male ſonarent hujuſmodi phraſes Latine, melius Anglice; *The bodies whole, the heads parts,* &c. Quare in hoc ſenſu collectivo, notio *(totum)* Subſtantive et abſtracte eſt accipienda; in ſenſu vero diſtributivo, hæ notiones ſunt reddendæ adjective, *uvvi suna, omnes homines;* vel per adjectivum *personæ;* ſic, *sunalli, omnes homines; sunirri,* omnes res. De particula *unusquisque* hactenus. *Aliquis, nonnullus, particularis,* ſunt adjectiva *partis* vel *unius. Ullus,* eſt adjectivum *entis.* Voces hæ, *quicunque, ubicunque, quandocunque,* &c. ſignificant rem, perſonam, tempus, vel locum, &c. cum quadam Emphaſi, quæ Latine exprimitur per terminationem *cunque;* quæ bene ſignificari poteſt, per geminationem Particulæ relativæ *lul* his præfixæ; *lulluldan, lulluldad, lullulil, lullulir,* &c. Quo pacto etiam fit nonunquam Latine; *quotquot, quisquis, quoquoversum,* &c. Particula *in* eſt admodum ambiguæ ſignificationis; numerant Logici octo modos ineſſendi (ut loquuntur) quibus nonum bene annumerare potuiſſent; ni. res *in tempore.* Verum unicus tantummodo eſt horum modorum, qui proprie dici poteſt modus ineſſendi: id eſt, res *in loco;* ut Petrus *in domo,* vinum *in poculo.* Proprie igitur dici poteſt lutum ſubjectum *inhæsionis,* cum quis *in* eo immergitur: improprie vero Anima reſpectu gratiæ, vel paries reſpectu albedinis, ſubjecta *inhæsionis* dicuntur: proprie tamen ſatis dicitur ſanguis *in veste.* Cæteræ phraſes ut plurimum reſolvuntur per

Genitivum caſum; ſic, *totum* et *pars* inter ſe comparata, *partes* ſunt *totius partes;* non *in* toto. Nos ſumus *in tempore;* id eſt, nos *temporamus* (ſi quis poterit notionem apprehendere ex hac barbara voce). Rex eſt *in* Regno; id eſt, habet, poſſidet Regnum, regnat. Longam orationem poſtularet omnem particularum ambiguitatem diſcutere; ſed cum hoc noverint docti ad quos jam ſcribo ſine me præunte præſtare, cumque etiam ſatis determinatæ ſint ex Tabulis, ideo hic amplius non expatiar.

Tenendum ſub Nomine particularum contineri, Notiones vulgo a Grammaticis, Conjunctiones, Præpoſitiones, et Interjectiones appellatas, quæ poſteriores formantur ab Animi paſſionibus, ut, *pom*, nota Admirationis, *puf*, ecce, *prob*, hei, vah, &c. Adverbiorum vero Flexio, eſt caſus ab his diſtinctus, modum actionis ſignificans; ut *pomesai*, admiranter, *ponesai*, amanter, &c.

Notandum etiam in Tabulis Accidentium, licet poſuerim Notiones primitivas, vocibus Latinis expreſſas, aliquando Verbaliter, aliquando Nominaliter, idque nonunquam in ſenſu Adjectivo, nonunquam Subſtantivo concreto, nonunquam abſtracto; tamen notio Radicalis et prima, concipienda eſt in ſenſu Abſtracto, quod Lingua Latina (in hoc vere Barbara) ſine Barbariſmo exprimere non ſinebat. Sic, hæ Notiones, *Dominus*, *Servus*, *Rex*, non ſunt exprimendæ per ſolas voces Radicales, ſed voci Radicali addenda eſt terminatio *el: e* enim eſt ſignificativa Adjectivi agentis; *l* vero perſonæ; ſic, *Kamel*, *Kramel*, *Kanel*.

Notandum ultra, *v* in principio dictionis eſt Characteriſticon vocis numeri ſignificativæ: Hoc fit ne fiat confuſio inter voces Numericas, et voces aliarum notionum ſignificativas hujus Linguæ. Præterea voces Numerorum Ordinalium formantur a vocibus Cardinalibus, adſciſcendo literam ſervilem *s*, et *a* Flexionis Adjectivæ ſignificativam; ſic, *vasa*, *vnsa*, *vesa*, &c. primus, ſecundus, tertius.

Ultimum quod hoc loco addam erit de Menſuris. Menſuræ, cum non minus ſint et arbitrariæ, et variæ apud varios Populos, quam ſunt voces Linguarum, ideo æquum judico in hac Lingua Philoſophica, ut rejectis omnibus vulgaribus Menſuris, non minus quam Vocibus, novæ Menſuræ prius formentur quam iis ſignificandis Nomina inſtituantur. Verum quidem eſt, cum nulla detur determinata quantitas a Natura quæ ſit primum Prin-

cipium et Regula menſurandi, arbitrium neceſſario eſt admittendum in menſuris conſtituendis, non minus quam in primitivis vocibus inſtituendis: Verum ſi unum primum principium ex Arbitrio admittatur in unoquoque genere Menſuræ, hoc erit Regula Menſurandi quamlibet quantitatem; nec neceſſarium erit, dato ſemel hoc primo principio Menſuræ, inſtituere diverſas et diſtinctas voces ad ſignificandos diſtinctos gradus Menſuræ in eodem Genere; ſed omnes aliæ Menſuræ exprimendæ eſſent per diviſionem vel multiplicationem primæ Menſuræ. Sic, ſuppoſito quod in genere Ponderis, *ounce* eſſet primum principium Menſuræ; Menſura vulgo *pound*, eſſet exprimenda 16 *ounces*. Nolo hic in me ſuſcipere, quod ſit iſtud principium menſurandi in ſingulis generibus Menſurarum determinare; ſed rem hanc (cum aliis) virorum doctorum judicio, in hac Materia me magis verſatorum ſubjicio; opinionem tamen meam hic ſic offero: Minima Menſura quæ a viris doctis uſum obtinuit in menſurando debet primum principium menſurandi conſtitui.

Aliam præterea rationem determinandi Menſuras, et ſic Nomina illis imponendi in hac Lingua cogitavi, *viz.* Cum (ut dictum) omnis determinatio Menſuræ ſit res omnino arbitraria, et Menſuræ apud varias Gentes variæ ſint, ideo Regulam menſurandi conſtituere Menſuras apud nos Britannos in uſu: Si enim Arbitrium neceſſario ſit admittendum, conſentaneum videtur, ut noſtrum Arbitrium hic præferatur; ut ſciant aliæ Nationes unde hæc Ars primam originem duxerit. Verum cum noſtræ Menſuræ, non minus quam aliorum populorum ſint ſine ratione inſtitutæ; id eſt, variæ denominationes Menſurarum in eodem Genere Menſuræ, non diſtinguantur et excedant ſe invicem, ſecundum regularem et eandem quantitatis proportionem, *e. g.* 4 *farthings* (quæ eſt minima Menſura in Genere Pecuniæ) faciunt unum *pennie*, 12 *pennies* faciunt unum *shilling*; 5 *shillings*, unum *crown*, 4 *crowns*, unum *pound* (eadem eſt irregularitas proportionis in aliis Menſuris) omnino contra ſcopum Linguæ Philoſophicæ fuiſſet, his Menſuris ſic determinatis Nomina impoſuiſſe. Deinde non eſt ſupponendum, licet hæc Lingua ita invaleret, ut uſum omnium aliarum Linguarum exterminaret, quod valde eſt improbabile (licet enim mihi admodum probabile videatur eam ita invaliturum in poſteris ſæculis, ut omnes Gentes cultæ et Literatæ ea uſuri fuerint, quomodo nos Europæi utimur Lingua Latina; non eſt tamen pro-

babile, eam uſum omnium vulgarium Linguarum penitus aboleturam) quod propterea omnes Nationes, Antiquas et uſitatas Menſuras ſimul cum Linguis rejicerent.

Quare tertio, omnibus his conſideratis, concludo; niſi hunc arbitrarium morem menſurandi mutare poſſemus in Philoſophicum, fruſtra eſſet Nomina Philoſophica his Notionibus non Philoſophicis inſtituere: Quapropter dum Gentes omnes conſenſerint mutare hunc menſurandi modum, retineant cum Arbitrariis Menſuris etiam earum Arbitraria Nomina: Cum igitur ſermo habetur in hac lingua de Menſuris alicujus Nationis, exprimantur per Nomina ab ipſis uſitata, tanquam eſſent propria Nomina virorum vel Locorum.

Tenendum tamen eſt; bene inſtitui poſſe Menſuras Temporis (adeoque etiam in hac Lingua, Nomina iis ſignificandis) ad diſtinguendos diverſos gradus vitæ in rebus Animatis: Ratio eſt, quia hic datur fundamentum in re ipſa; et ideo in omnibus fere Linguis vulgaribus, certi quidam gradus temporis vitæ, diſtinctis Nominibus inſigniti inveniuntur: ut in homine, infantia, pueritia, adoleſcentia, juventus, ſtatus adultus, ſenectus. Quidam etiam diſtincti gradus notantur in plantis et brutis.

Quamobrem in homine Creaturarum viventium perfectiſſima, admitto quinque diſtinctos gradus temporis vitæ; quos diſtinguo per voces numericas voci ſpeciei ſignificativæ additis. Sic, 1. Infantia. 2. Pueritia. 3. Adoleſcentia. 4. Status adultus. 5. Senectus; *uvva*, *uvvn*, uvve, uvvo, uvvv. Sic, proportione ſervata, diſtingui poſſunt 5 ætates plantarum: Prima, dum ex ſemine ſurgit (in Arboribus vocant Angli *kitkey*). Secunda Ætas eſt ſurculus tener. Tertia, Surculus procerior factus. Quarta, Planta adulta. Quinta, Vaneſcens et marceſcens. Idem dicendum de Brutis, in quorum Nominibus (præcipue Brutorum nobis maxime familiarium) etiam quædam veſtigia hujus diſtinctionis in Linguis vulgaribus inveniuntur; ſic Angli dicunt, *foal*, *colt*, *calf*, *heifer*, &c. quæ voces diſtinguunt duos primos gradus vitæ in his animalibus. Ratio autem quod hic admittam Numeros, ad harum Notionum differentias diſtinguendas, eſt quod hæ differentiæ eſſentialiter pendeant a numero; in hoc enim ſolo caſu admittendi ſunt numeri ad rerum Differentias ſignificandas. Ratio iterum quod Numeri ita ſint inepti ad Rerum differentias diſtinguendas, eſt hæc, quia aliarum omnium

Notionum quæ ſub cognitione humana cadunt, Numeri ſunt a ſenſibus maxime abſtracti; ideoque anima humana (quæ dum corpori alligata Senſuum miniſterio utitur) dum notionum pure Numericarum recordatur, cogitur Numeros applicare ad res ſenſibiles: Ita ut vere dici poſſit, omnem Intellectus operationem ultimo reſolvi in numeros, et hos ſi non neceſſario ſemper (quod non audeo poſitive aſſerere) ſaltem ſæpiſſime, primo rebus ſenſibilibus applicari.

Admitto etiam ſex gradus menſuræ temporis in genere, vocibus numericis diſtingui, ni. *minutum*, *hora*, *dies*, *septimana*, *mensis*, *annus*; ſic, *danva*, *danvn*, *danve*, &c. dici etiam poteſt, *danvai* ſeptimana, *daniar* menſis, *danial* annus.

Hic ultimo teneatur de gradibus conſanguinitatis et affinitatis; modus maxime proprius et Philoſophicus exprimendi has relationes (quia ſcil. maxime ſecundum ipſius Rei naturam) eſt per voces deſumptas a notionibus Primis et Radicalibus, in quibus hæ Relationes fundantur. Sic, pater *pagel*, id eſt, perſona gignens; mater *patel* vel *pratel*, id eſt, perſona concipiens, vel pariens; avus, *pater secundus*; proavus, *tertius pater*; atavus, *quartus pater*, &c. Adeoque hoc ſenſu, Adam erit noſter ultimus ſeu poſtremus pater. Sic filius *pagol*, id eſt, perſona genita; nepos, *secundus filius*; pronepos, *tertius filius*, &c. Sic fratres, ſunt *cognati primi* (nam teneatur, *steb* ſignificare conſanguinitatis relationem collateralem, non eam quæ eſt in linea recta) *cognati secundi*, qui habent eundem avum; *cognati tertii*, qui habent eundem proavum, &c. Avunculus, id eſt, *frater patris*; matertera, id eſt, *soror matris*, &c. idem intelligatur de gradibus affinitatis, id eſt, periphraſtice exprimendi ſunt *mariti pater*, *mariti frater*, &c.

Sequitur reductio præcipuarum vocum Linguæ Latinæ, ad Notiones Radicales hujus Linguæ Philoſophicæ.

Et hic tenendum: Cum hic mihi tantummodo propoſitum ſit principia et fundamenta hujus Artis ita proponere, ut a viris doctis apprehendantur; ideo 1. Voces in Tabulis poſitis brevitatis cauſa hic non repetivi. 2. Nec omnes voces Latinas hic poſui; maxima enim pars vocum quæ reperiuntur in Lexicis, vel ſunt Derivativæ et Compoſitæ, ut, *bonus*, *bene*, *bonitas*, *benefacio*, &c., vel tales ſunt voces, quibus in aliis Linguis nullæ voces ſimplices reſpondent, ſed periphraſtice exprimuntur; quales ſunt quam-

plurima Nomina *vestium*, *vasium*, *ciborum*, &c. quarum explicationem, per voces hujus Linguæ hic intendiſſe prolixum nimis fuiſſet, præterea etiam ſuperfluum, cum viri doCti ſatis ſciant has voces reſolvere per ea quæ hic tradita ſunt: AuCtius autem Lexicon in gratiam vulgi poſtea parabitur. 3. Nemo doCtus expeCtabit me per voces hujus Linguæ redditurum eundem plane valorem omnium vocum aliarum Linguarum ſine periphraſi; hoc enim eſt impoſſibile, quia eſſet labor infinitus. 4. In explicandis vocibus Latinis hic poſitis non uſus ſum longa periphraſi verborum, nec omnes earum varias acceptiones enumeravi, ſed breviter tantum expreſſi præcipuas Radicales voces hujus Linguæ per quas explicandæ ſunt: poſſunt etiam quædam Notiones quas ego per voces compoſitas expreſſi, aliquando pro re nata, aptius periphraſtice et diviſim exprimi, et e contra; vocum tamen Compoſitioni, compendii et Emphaſis cauſa, omnibus modis ſtudendum eſt; et ad hoc faciendum cuique ſua libertas linquitur, modo ratio Compoſitionis fit clara et evidens; in hoc enim ſummum Philoſophiæ acumen apparebit, multiplicare per Compoſitionem et Derivationem ſignorum compendia Emphatica ex paucis Primitivis ſine obſcuritate.

LEXICON LATINO-PHILOSOPHICUM.

Abacus, *fran.*
Abbas, *kaf.*
Abdicare, *sofkafesv, trvd sofslem.*
Abdere, *dit.*
Abire, *bempnd.*
Abhinc, *shvb lol dan, bem lol dad.*
Abhorrere, *prebesv svmpron, trof.*
Abjurare, *scabe trimesv.*
Ablactatio, *soffns, sofinn.*
Abolere, *sofshanesv, grvpesv, sofiavresv.*
Abominari, *svmpronesv.*
Aboriri, *pratesv svb danu.*
Abripere, *dos don bemdep shekai.*
Abrogare, *sofiavresv, sofkebesv.*
Abrumpere, *domesv donesv.*
Absolvere, *kon shon sis.*
Abstemius, *sofprafemp.*
Abstinere, *trvs preb tim sodesv.*
Absurditas, *shib prem softos.*
Abundantia, *svmu slvdu.*
Abusus, *shig.*
Abyssus, *dadbaf.*
Academia, *dadtem fantem dadtis.*
Accendere, *nnmesv, semesv nnm.*
Accidere, *sakesv pnk ded.*
Accingere, *drod sitresv.*
Accipere, *sprnb.*
Acclivitas, *blnmu.*
Accolere, *stid shvmbem.*
Accommodare, *stop sitresv.*
Acervus, *drotor,* —— *ind* ut *nnfind.*
Acetum, *flnm* vel *flem grnbe.*
Acies, *bnbu.*
Acquiescere, *dram tvp.*
Acquirere, *stis spnm.*
Aculeus, *sabdik.*
Acumen, *bnbu primu.*
Additamentum, *shunu drose, tnno.*
Adeo, *svm lolsns ses.*
Adjuro, *skab.*
Adipisci, *spnm sprnb sng stis.*
Administratio, *kas, kram.*
Admittere, *slaf prndesv tvf*
Admodum, *svm.*
Adnihilare, *sofiavresv.*
Adolere, *nnmesv skagu gub.*
Adolescens, *uv daba uvve.*
Adoptare *tvdesv snt pagol.*
Adoriri, *kum.*
Adorare, *skaf tud stnf.*
Adesse, *dap.*
Advena, *stred.*
Adversus, *shom.*
Adulterium, *kvf.*
Ædes, *fan.*
Æger, *grug.*
Æmulari, *pvt.*
Ænigma, *tidu trifo, shepa.*
Æqualitas, *slvn, stlnm.*
Æquanimitas, *pib pod.*
Æquilibrium, *slvn, dnm.*
Æquitas, *kef sid grat.*
Æquinoctium, *slvn dangom dangrom.*
Æquipollentia, *sefu slvna.*

Æquivocus, *tose shumir*
Ærugo, *grvpu snf nef gob.*
Ærumna, *prob pred.*
Ærarium, *fanfum.*
Æstas, *dangam.*
Æstus, *gamu shvna, damu shvna snf is.*
Ætas, *dansnp.*
Æther, *nam, nnm.*
Ævum, *danial vali.*
Affectus, *peb, pis, pos.*
Afferre, *bremdep.*
Affinitas, *streb sted.*
Affligere, *kofship prob kvm.*
Ager, *nom nvba, flan.*
Agger, *rvp nomind.*
Aggredi, *sem kum.*
Agrestis, *stran.*
Agilitas, *sprnt, dam, sod.*
Agmen, *shum —— ind.*
Agricola, *nomspnpel.*
Agnatio, *steb.*
Agnomen, *ton svba.*
Agnus, *nekpimva.*
Ah, *prob.*
Ahenum, *fren nefgoba.*
Alabrum, *sabframdef.*
Alacer, *pob prim.*
Alapa, *digu snf smvs.*
Albugo, *shunu gofa snt mns snf snur.*
Alchymia, *temu snf gakreu snf nef.*
Alea, *mib spafa.*
Alias, *danslom.*
Alibi, *dadslom.*
Alienare, *gvg shnd strof.*
Alimentum *sangum.*
Aliquando, *shundan.*
Aliter, *slomses.*
Alius, *slom.*
Allevare, *drnmresv pobresv.*
Allicere, *tum spak.*
Allidere, *shomdenesv.*
Allucinari, *tren.*
Alludere *son spam pvp.*
Almus, *gum pok.*
Alere, *gum.*
Alphabetum, *tommu snna.*
Altare, *fran skaga.*
Alter, *slomvn.*
Altercari, *spap.*
Alternare, *snt shnd.*
Altitudo, *bafu.*
Alvearium, *dadu snf snap nengnm.*
Alveus, *ab snf ris.*
Alvus, *fos.*
Amanuensis, *trin.*
Ambages, *trommi spake sliba.*
Ambiguitas, *slib tose shumir.*
Ambitio, *trvbpebstnf.*
Ambitus, *eb beg.*
Ambo, *vn, lol tnn lel.*
Ambulare, *pnb.*
Ambulacrum, *dadpnb.*
Amentia, *grugrin.*
Amita, *stebpragva snf pagel.*
Amnis, *ris.*
Amœnitas, *ped pob.*
Amphitheatrum, *fran spafa, fada, feda*
Amplecti, *beg smv.*
Amplus, *svm beisam ban.*
Amussis, *sabbnf.*
Anathema, *truf.*
Anatome, *temdoniov.*
Anfractus, *brnf.*
Angere, *pred prob.*
Angina, *grugnir.*
Anhelare, *grugsheppam.*

Animadvertere, *puf, pem.*
Animal, *ov snpe.*
Animus, *eiv tam.*
Annulus, *frvmsmus mab.*
Annus, *danial danvu.*
Ansa, *sunu dvn dvf.*
Annales, *sefdan.*
Anteferre, *svbpop befdad.*
Anticipatio, *svb bef sodesv samesv*
Antipathia, *shom.*
Antipodes *shomsmvr.*
Antiquitas, *drab.*
Antistes, *stnf.*
Anus, *dobu snf fvs.*
Anxietas, *pred, prob pum.*
Apex, *rab*
Apoplexia, *grugsofpies grugdod.*
Apostata, *sofslem.*
Apostema, *grugbrap.*
Apostolus, *kad.*
Apparere, *mnfosv, pem pef.*
Appellare, *ton.*
Appendix, *shunu tnno droso.*
Applicare, *dit dad.*
Approbare, *tad tvf.*
Aptitudo, *sit sos.*
Arbiter, *knmel tvdo.*
Arcanum, *dit sofpem.*
Arcere, *krum shaf drng.*
Arduus, *shep baf shnb.*
Arena, *nnfmamind.*
Argentum, *nef vnsa.*
Argilla, *nafgap.*
Argumentum, *sas, sog.*
Arguere, *tap trub kib.*
Arista, *vg.*
Arithmetica, *temtng.*
Armentum, — *ind neikflanind.*

Arare, *flan.*
Armilla, *frvmsmn.*
Aroma, *neibdeig gema.*
Arra, *shunu snf stndu.*
Arrestare, *kod.*
Arridere, *spam ped.*
Arrogantia, *trvbsodpop prig.*
Articulus, *smeis drod.*
Arx, *fan kusa.*
Ascendere, *dam pnb pnd bns ben.*
Aspicere, *mns.*
Aspirare, *pam, dnf spnm.*
Assiduitas, *pip slem.*
Assuescere, *set.*
Astrologia, *temias.*
Asylum, *dad snb.*
Atomus, *mam.*
Atrium, *rebak.*
Atrox, *pit pin.*
Avaritia, *trvd pvk.*
Author, *sas sam sem.*
Audacia, *put pot.*
Audire, *mnr.*
Auferre, *bemdep.*
Augere, *svn.*
Aurichalcum, *nefgod.*
Aurora, *semu snf dangom.*
Aurum, *nefsimap.*
Austeritas, *grnn prid pin.*
Aut, *trnf.*
Automatus, *sabdan dame lvl.*
Autumnus, *danrag.*
Avunculus, *stebel vasn snf patel.*

Bacca, *ragnog.*
Balbus, *grugshaftin.*
Balneum, *dadnimsif.*
Baptismus, *nimsif skapnim.*

Barba, *amnir.*
Barbarus, *pit softos.*
Barritus, *panu snf nnksuf.*
Basium, *neis.*
Batillum, *frennnm.*
Beatitudo, *skan saku sima.*
Benignitas, *pokpon.*
Biblia, *sefsasva.*
Bilis, *n*m.
Bilanx, *sabtngdnm.*
Bitumen, *nafgap.*
Blæsitas, *grugshaftin.*
Blanditiæ, *pup.*
Blasphemia, *truf sasva.*
Botrus, *ragsnug.*
Braccæ, *smnrfreim.*
Bractea, *mem.*
Braxare, *gudesu flnm.*
Bucca, *nos.*
Bulbus, *mnb.*
Bulla, *mnb snf nim.*

Cacare, *em dragresu fos.*
Cadaver, *ov shnpa.*
Cæcitas, *sofmns.*
Cædere, *shnpresu.*
Cælare, *temdom trin.*
Cælebs, *trim stef.*
Cæremonia, *stam.*
Cæsius *gop.*
Cæspes, *shunu fnf mem snf nom.*
Cæspitare, *shaf smus grugpns.*
Calamitas, *skran prob.*
Calamus, *fam lnd.*
Calcar, *sabdik.*
Calceus, *freimsmur.*
Calculus, *grugnnf sabtngshum.*
Caliga, *freimsmer.*
Callere, *gab prim.*
Calva, *mas.*
Calvities, *grugsofiam.*
Calumnia, *kibu shiba.*
Campus, *lor.*
Canistrum, *fron.*
Canities, *am gof.*
Captivitas, *kug.*
Canon, *keb tok.*
Capere, *duf.*
Capistrum, *sabmeisdrod.*
Capsa, *fem fron frum.*
Carbo, *san sofnnm nafnnm.*
Carcer, *dadkog.*
Cardo, *ib.*
Caries, *grup.*
Carina, *ab snf fnn.*
Carminare, *drop sud.*
Carpentum, *flin.*
Carnefex, *kasshnprel.*
Carpere, *drid drot.*
Cartilago, *raf.*
Carus, *stnd sum.*
Casa, *fan strnb.*
Caseus, *flom.*
Castellum, *fankus.*
Castigare, *kof.*
Castrare, *sofsner.*
Castus, *tubpap.*
Casus, *sak sns tron.*
Catalogus, *fefton.*
Catena, *sabdrod frum.*
Catulus, *nik potva nik primva*, &c.
Caudex, *lnd.*
Cautus, *tef prim pud.*
Caulis, *lnd.*
Caverna, *ol.*
Celebritas, *stnf stnn tip.*

Celeritas, *dŋn.*
Cella, *fan.*
Celare, *dit.*
Centrum, *mam brepa.*
Cera, *nennŋm.*
Certare, *spap kub spŋg.*
Certitudo, *sib.*
Cervisia, *flŋm nupa.*
Cessare, *sofsod sofslem.*
Chaos, *ov sofshana shud.*
Character, *tom dip.*
Chirotheca, *freimsmus.*
Chronica, *fefdan.*
Cicatrix, *dipu snf domu fŋf ef.*
Cicur, *prin.*
Cingere, *beg drod.*
Circa, *beg.*
Circumferentia, *eb.*
Circa, *loliŋb.*
Cisterna, *frennim.*
Civitas, *fanind.*
Cithara, *fŋb.*
Clam, *sofpem.*
Clamare, *sumpan.*
Claritas, *gon gid.*
Classis, *fŋnind sud.*
Claudus, *sofsmur grugpŋb.*
Clavus, *ŋt fim.*
Clavis, *sabdog.*
Clementia, *prit.*
Clivus, *blŋn.*
Cloaca, *fam snf avvi shiffa.*
Clunis, *fus.*
Cochleare, *frenneis.*
Cæna, *steim, paf shemdangom.*
Cogitare, *tat.*
Cogere, *shek sed.*
Collegium, *stes fanstes.*

Colare, *freimmeir.*
Colon, *top.*
Colus, *sabfram.*
Comis, *prinstan.*
Comma, *top.*
Commercium, *stes stos.*
Communicare, *pemrefu tosresu.*
Compendium, *bram.*
Compositio, *shŋn.*
Computatio, *tŋgesu shum tŋn.*
Conatus, *dŋf.*
Concedere, *tad.*
Conscio, *trodu stŋna, skasa.*
Conculcare, *brensmuresu.*
Conclusio, *trŋm shŋm tŋt.*
Condire, *gŋsresu.*
Conditio, *sŋs tŋm.*
Condonare, *stup.*
Conducere, *strob sig.*
Condylus, *smeis.*
Consideratio, *tat.*
Consumere, *grup sofshan.*
Contra, *shom.*
Convenire, *dim sprap sos.*
Conversatio, *stes sod.*
Convivium, *fleim shek slubpafu.*
Copia, *sum.*
Coquere, *gud.*
Corium, *ŋf.*
Corona, *frummeis.*
Corrigere, *sensis sensham.*
Corrugare, *dek.*
Corrigia, *shundof snf freimsmur, sabdig.*
Corrumpere, *grup, sofsham.*
Coruscare, *gom.*
Cras, *danve dangom shub,*
Creare, *samesu san sofavar.*
Crepusculum, *glom.*

Creta, *nafgof.*
Cribrum, *sabsinrer dobo.*
Crimen, *kvs.*
Cruditas, *grvd.*
Crumena, *fromsum.*
Crus, *smer.*
Crusta, *memgab.*
Crux, *sabshnpren brnna ship prob.*
Cubare, *pnk brnm.*
Cubile, *frun.*
Cubiculum, *fanfrun.*
Cudere, *dib dig.*
Culina, *fanfleimgvd.*
Culmen, *rab.*
Culpa, *prem kvs.*
Culter, *sabdom.*
Cumulus —— *ind rvp.*
Cunæ, *frunuvva.*
Cuneus, *sabdrob.*
Cupio, *peb tvg.*
Currere, *svmpnb.*
Cuspis, *shundik bep.*
Custodire, *shad.*

Debilis, *sofsef.*
Decretum, *kom.*
Decere, *sit seb shanu sima sin.*
Decipere, *spak.*
Decorum, *shanu sima sin sudu sima sit.*
Decus, *stnf sin prog.*
Dedecus, *sofstns shin pog.*
Dedicare, *spnf trvn.*
Dedignari, *prop tagesv sofsat.*
Defetisci, *spnt.*
Deficere, *shvd shng.*
Degener, *sosslvn pagel.*
Deinde, *shvbsud shvbdan.*
Dejicere, *dedresv denesv bns bren.*
Deinceps, *shvbdan.*
Delere, *sofshan.*
Demere, *dos trnn.*
Democratia, *kanstrnfu.*
Demonstrare, *pemresv sibresv.*
Denique, *shvbapai.*
Deorsum, *bns bren.*
Depsere, *gvmesv flam sofgvdo.*
Descendere, *pnb dam bns bren.*
Designare, *tonesv shug trvn.*
Desinere, *sofslem.*
Desistere, *sofslem dram.*
Desperatio, *sofpof.*
Detrimentum, *strng shvd.*
Dextera, *sinv beba.*
Diabolus, *oiv shima.*
Diadema, *frvm meis snf kanel.*
Dialogus, *snttinu slvbtinu.*
Diæta, *sespaf danpaf dantut.*
Diameter, *ib.*
Diarium, *fef danve.*
Dico, *tin tim.*
Dies *danve dangom.*
Differre, *slom.*
Dignitas, *stnf stnd sat.*
Diluculum, *semgom glom.*
Diluvium, *nimdit.*
Dimidium, *shunu vnsa.*
Dirigere, *damresv babai sud.*
Disputare, *tap shom tap.*
Diu, *svmdan.*
Divortium, *strvsu snf stefu.*
Dolare, *gratresv.*
Dolus, *spak shib.*
Domare, *kut prinresv.*
Dos, *fum stnb stefa.*
Dubitare, *slib plem.*
Durare, *danesv slem.*

Ebrietas, *trvbpraf.*
Ebur, *nas snf nŋksvf.*
Ecce, *puf pom.*
Ecclesia, *steskam.*
Ecstasis, *grug shŋg snp.*
Esurire, *pebpaf.*
Egere, *shŋg.*
Egregius, *sin simap.*
Electrum, *ad snf sneiggigema.*
Eleemosyna, *stifprit.*
Elementum, *shan vasa neim grvpomp.*
Ellychnium, *fnm mnm bepa sns frnn.*
Eloquentia, *temtin simtin.*
Embryo, *snus.*
Emungere, *sif.*
Ephippia, *frim nŋkpota.*
Episcopus, *kaf.*
Epistola, *trin.*
Equitare, *nŋkpotdeposv.*
Eremus, *nom gruna sofstido.*
Erigere, *bnmresu.*
Esca, *fleim gumer.*
Evangelium, *tibsnb.*
Eucharistia, *skappik skappaf.*
Evenire, *shed.*
Examinare, *tŋb tid.*
Exsanguis, *sofien.*
Exanimare, *shŋpresv sofeivresv.*
Excellentia, *sis sim.*
Excommunicare, *sofstes.*
Excussio, *dos beddenesv.*
Excudere, *trin dip dibtrin.*
Exercere, *set spŋp.*
Exercitus, *kragind.*
Exhalatio, *nein.*
Exilis, *shvm grad.*
Existere, *av.*
Exlex, *kvb shŋg keb.*
Exorcismus, *kvk.*
Exoriri, *sem guf ben.*
Explicatio, *tif.*
Expugnatio, *kut.*
Exter, *bed stred.*
Extinguere, *shemesv nŋm sofsham shŋpresv.*
Exilium, *kob.*
Exuere, *soffreim sofdit.*

Faber *temel.*
Fabula *tigshib.*
Facetiæ *pid.*
Facere *sam.*
Facultas *sef tem.*
Fæx *grvp.*
Falx, *sabdom braba.*
Fames, *grugshvg fleim.*
Farrago, *gvm shud.*
Farina, *mamind difo snf nvb.*
Fas, *kef keb.*
Fascia, *srŋmdrod*
Fascinare, *kvk.*
Fastidire, *preb prop.*
Fateri, *tvf kig.*
Fatigare, *spŋt.*
Fatum, *sak komor trvnor snf sasva.*
Favere, *pon.*
Favus, *nengŋmind*
Faux, *neir.*
Fax, *frŋn.*
Febris, *gruggam.*
Ferax, *gun.*
Ferre, *dep.*
Ferrum, *nefgab.*
Festinare, *dŋn.*
Festus, *skas.*
Fibula, *sabdrod.*

Fictio, *pug tŋm shib.*
Fidelis, *sib sid sofpug.*
Fides, *tvp.*
Fiducia, *tvp sib.*
Figere, *dvmresu dramresv.*
Figulus, *samel snf frenni noma.*
Filius, *pagol.*
Fimbria, *bep.*
Firmus, *dram sofdam.*
Fistula, *fam fab.*
Flabellum, *sabdamnem.*
Flagellum, *sabdig.*
Fligere, *dig pronresv ship.*
Flare, *nemesv pam nŋn.*
Fluere, *gak.*
Fluctus, *gaku snf nim.*
Flumen, *ris.*
Fodere, *bagresv nom.*
Fossa, *dadbog ol.*
Fædus, *stos.*
Fænus, *stŋgfum.*
Fænum, *nab.*
Follis, *sabdamnem.*
Forceps, *fvm.*
Formosus, *sin.*
Fornix, *rep.*
Forte, *sak shed.*
Fortis, *sef dŋb.*
Forum, *dadstof.*
Foveo, *shad gum pum.*
Fomes, *shan snf nŋm.*
Frænum, *sabdvnmeis.*
Frater, *steb vasa.*
Fremere, *svmgis.*
Frendere, *nasdim.*
Frequens, *snt shum*
Frigere, *gvd.*
Frivolus, *sofshem sofsig.*
Frustra *sofshem.*
Fuga, *pŋp.*
Fulcire, *dŋd.*
Fulgere, *gom sengom.*
Fulmen, *gisies.*
Funda, *sabden.*
Fundamentum, *ab.*
Fundere, *gakresv bedgakresv.*
Fundum, *ab.*
Fungi, *kas.*
Funus, *stam nomdit shŋpalli.*
Furca, *sabdikvŋ*
Furfur, *shunsir snf mamind.*
Furor, *svmpod.*
Fustis, *sabdig neiga.*
Fusus, *sabframdef.*

Galerus, *freimmeis.*
Garrire, *pan neip tin svmtin.*
Gangræna, *gruggrup.*
Gelu, *gramgvb.*
Gemitus, *grugbredgis.*
Genealogia, *fefpag fefsteb.*
Genus, *tob sug pad.*
Generositas, *pot stŋf.*
Generalis, *sug sun.*
Gens, *sten.*
Germinare, *guf.*
Germanus, *sib.*
Gigas, *uvim.*
Genius, *tam.*
Glaber, *sofiam.*
Glacies, *nimgvb.*
Glans, *rag snŋg mŋb.*
Glaucus, *gop.*
Gleba, *shunnom.*
Globus, *mŋb.*
Glomus, *mŋbfram.*

Gloria, *stef prog sin.*
Glubere, *dos ŋf.*
Gluma, *ig.*
Gluten, *shangap rŋp.*
Glutio, *paf.*
Grammatica, *temtos.*
Grando, *nenmam gvba.*
Granum, *gvpar suma rug.*
Gratia, *pon skam pik.*
Gratis, *stifai.*
Gratulari, *stat.*
Gremium, *shunu bem smŋrri.*
Grex, *shum,* —— *ind.*
Grundia, *ek.*
Gubernare, *kan sud.*
Gula, *snas.*
Gutta, *mam sŋf nim.*

Habena, *shundvf sŋf sabdummeis.*
Habitudo, *son sŋf.*
Habitus, *set.*
Hamus, *rŋbshŋp sabrŋb sabbrab.*
Harmonia, *sosgis.*
Harpago, *sabdrid sabdvs.*
Haurire, *deb.*
Hebdomas, *danvo danvai.*
Hebetudo, *pim tamu svm a.*
Herus, *kam.*
Hilaritas, *pob pid.*
Historia, *tig.*
Hodie, *loldanve.*
Horizon, *mab bepe mŋsu.*
Horreum, *fanneib.*
Hortus, *dadneid.*
Hospitium, *steg.*
Humerus, *fes.*
Humilis, *prot bren.*
Hyems, *dangram.*
Hypocaustum, *fangam.*
Hypocrita, *pug.*

Jactare, *prog.*
Jaculum, *fip.*
Janua, *ak.*
Idea, *sag.*
Idioma, *tin.*
Idolum, *sasva shiba.*
Jecus, *snes.*
Jejunus, *pebpaf drag grun.*
Ignominia, *trud pog.*
Ignorantia, *sofpem.*
Ignoscere, *krof kon stvp.*
Illidere, *dam den shom.*
Imago, *slvn sag.*
Imber, *non.*
Imminere, *lud tim ben meis dedemp*
Imo, *tim sib.*
Impensa, *stŋp.*
Importunitas, *dan shit ship svd.*
Imputare, *kib.*
Incendere, *semesv nŋm.*
Incestus, *kvf steb.*
Incitare, *spad tub.*
Incommodum, *sofseg strŋg shŋb.*
Incus, *sabbrendig.*
Indoles, *tam.*
Indulgere, *pon svmpum.*
Induere, *freimesv dit.*
Indusium, *bredfreim.*
Industria, *pip pum spŋp.*
Infans, *uvva.*
Ingenuus, *pis sima, tvb sid.*
Inguen, *snv snvr.*
Initium, *sem.*
Innocentia, *sofkvs keb.*
Inopinans, *sofpvn.*

Insigne, *tos stŋf toskus.*
Instituo, *tib trvn sud.*
Integer, *sis sun sofdon.*
Intercapedo, *bem.*
Intercedere, *pŋbesv bem lol brem lel sŋtkif.*
Interdum, *shundanni.*
Interea, *trimshaf luldan leldan.*
Interest, *seg sig stŋg.*
Intermitto, *sofslem.*
Interstitium, *bem.*
Intricare, *dop shep.*
Inventarium, *feffrein.*
Invicem, *sŋt.*
Iris, *mabgosies.*
Irritare, *spad sofsham.*
Iter, *pŋd.*
Jubere, *tup.*
Jubar, *mŋm sŋf gomu.*
Jugulum, *meir.*
Jugum, *sabdrosmeir.*
Jumentum, *neik spŋp.*
Jungere, *dros.*
Jurgium, *spap.*
Juvenis, *uvve.*

Labare, *ded.*
Labarinthus, *shep.*
Lacertus, *smŋ.*
Lacus, *lir.*
Lædere, *predesv kvm.*
Lætari, *pob.*
Lævigare, *gratresv.*
Lagena, *fren nŋfa.*
Lambere, *naresv.*
Lamentari, *spab spram.*
Lamina, *mem.*
Lampas, *frŋn.*
Lana, *am sŋf nekpim.*
Lancea, *fip.*
Languere, *grugdrŋb.*
Laniare, *dom dof kasneikshŋprel.*
Laqueus, *sabspat.*
Largitas, *pok.*
Lascivia, *trvbpap.*
Latere, *dit sofpem.*
Laterna, *femfrŋn gona.*
Latrina, *faniem.*
Latro, *kvn.*
Latrare, *panu sŋt nikprim.*
Lavare, *nimsifesv.*
Legere, *tin tif.*
Legumen, *nvb.*
Lentigo, *grugslomgos.*
Lentus, *drŋn gap.*
Lepidus, *pid pobre.*
Lepra, *gruggofinf.*
Lethargia, *grugprab.*
Librare, *tŋg dŋm.*
Lienteria, *gruggratsnar.*
Lignum, *neig sneig.*
Limare, *gratresv.*
Limen, *abiak.*
Limes, *bep tos.*
Limus, *nomshif.*
Linire, *din.*
Lingere, *naresv.*
Linteum, *fremsnvd.*
Lippus, *grugpredmŋs.*
Liquor, *gan.*
Littus, *ŋb sŋf is.*
Livor, *pvb pron.*
Locare, *dad stob.*
Lodix, *freimfrun.*
Lorum, *frŋmfŋm.*
Lues, *grugsvmshŋp.*
Lumen, *gom.*

Luscus, *grugbrŋfmŋs.*
Lutum, *nomshif.*
Luxuria, *trvbped.*

Macer, *grad shvmief.*
Machina, *sabkus.*
Macula, *slomgos.*
Madere, *gan.*
Magnus, *svm.*
Majestas, *svmu kana.*
Mala, *no nŋ.*
Malleus, *sabdig sabdib.*
Malle, *tvd svn.*
Mandibula, *nŋ.*
Mane, *semdangom.*
Manere, *dram slem danesv.*
Manica, *freimsmes.*
Manifestus, *pemo.*
Manipulus, —— *ind drot.*
Mantile, *freimfran freimsmvssif.*
Mantica, *from.*
Manubrium, *shundvf.*
Margo, *bep.*
Marsupium, *from.*
Massa, *mim.*
Mater, *pragel.*
Matrimonium, *stefu.*
Maxilla, *nŋs.*
Mederi, *gugresv.*
Meio, *remesv.*
Mel, *nengŋm.*
Membrum, *shun sŋf ov.*
Membrana, *ŋf grada ed grada.*
Menda, *sir trenshvd.*
Mendacium, *tinshib.*
Mendicare, *tun fleimtun.*
Mens, *eiv tam, tat.*
Mentio, *tin.*
Mensis, *danvv daniar.*
Mereri, *sat.*
Meretrix, *kvb.*
Meridies, *brepdangom.*
Meta, *tos bep.*
Methodus, *sud.*
Metere, *dom drotesv raggi.*
Metrum, *trog.*
Messis, *dandrotrag danrag.*
Mica, *shunif.*
Migrare, *shŋdesv stidu bemdam.*
Mimus, *pvn.*
Minuere, *shvmresv.*
Mittere, *pŋdresv stin.*
Modus, *ev sŋs ses.*
Modestia, *tvbpog.*
Molare, *dif.*
Momentum, *danva.*
Monachus, *kaf stes.*
Monere, *penresv tub.*
Moneta, *fum.*
Monstrum, *gvp shŋk.*
Monumentum, *femshŋp av penre.*
Mora, *dan shaf.*
Morbus, *grug.*
Mordere, *nasesv.*
Mortarium, *frendif.*
Mucere, *grvp.*
Mucro, *bep.*
Mulcere, *din prinresv.*
Mulgere, *baddib drid en.*
Mulier, *uv prag.*
Mulcta, *fumkof.*
Mundus, *avind.*
Mungere, *dib sif.*
Munire, *vpesv rvpesv feipesv.*
Munus, *stif.*
Murmur, *grid.*

Murus, *ip rvp vp.*
Musculus, *ef.*
Musica, *temgis.*
Mussare, *tinesv gridai gibai.*
Mutilus, *sir shŋge shunu.*
Mutus, *softin.*
Mutuare, *stop.*

Nævus *shin shif.*
Nanus, *uvif.*
Nares, *doggu fŋf mv.*
Nasci, *prat.*
Natura, *sasvŋ shan sek.*
Navigare, *fŋndeposv.*
Nausea, *grug pebdag snal.*
Nebula, *nengrafes.*
Nebulo, *uv shima shiba, kusel.*
Nec, *tŋn trim.*
Necesse, *sed.*
Necare, *shŋpresv.*
Nectere, *drop dop.*
Nefas, *sofkef sofkeb.*
Negligere, *prip.*
Negotium, *sar sod san.*
Nemus, *sneigdad.*
Nere, *framresv.*
Nequam, *shim kvs.*
Neuter, *sofiav fŋf vŋ.*
Nictare, *dam mŋ.*
Nidus, *dadneipprat.*
Niger, *grof.*
Nimis, *svd.*
Ningere, *nen gofa gvba.*
Nitere, *gom bŋggom.*
Nocere, *shig kvm.*
Nodus, *drod dop.*
Norma, *sabbab tok.*
Noscere, *pem.*

Notio, *tab pem, shan.*
Notorius, *svmpemo.*
Notare, *tos puf.*
Nothus, *pagol sofstefa.*
Novacula, *sabdom.*
Nox, *dangrom.*
Nubere, *stef.*
Nudus, *sofdit soffreim.*
Nugæ, *tinu pifa sofshama.*
Nullus, *sofiav.*
Numero, *tŋg shumu fus.*
Nuncius, *stinel tigel.*
Nutare, *damesv meis.*
Nux, *ragsnig.*

Obducere, *dit.*
Objicere, *shomtin shomden.*
Obruo, *dit dedresv dib.*
Obscœnitas, *pog tinu papa.*
Obscuritas, *grom shep.*
Obses, *stvf.*
Obsoleo, *sofset.*
Obstetrix, *safpratel.*
Obstinatus, *trvbpib.*
Occidens, *shunu breba snf nam.*
Occupare, *dvf stib.*
Ocrea, *freimsmer.*
Œconomia, *steis.*
Officium, *steis.*
Officium, *kas.*
Officina, *fanspŋp.*
Oleum, *ad.*
Olere, *ges.*
Olla, *fren.*
Omen, *tos.*
Omittere, *trim samesv sodesv.*
Omnis, *sun.*
Onerare, *dŋm.*

Opera, *slnp.*
Opus, *spnp sar.*
Opportunitas, *dansit.*
Oraculum, *tridu snf sasva keb.*
Orbis, *mab.*
Orificium, *dog.*
Oriens, *shun beba snf nam.*
Oscitare, *grug dogmeis.*
Ostendere, *samesv mnsesv pemesv.*
Ostentum, *av shnka.*

Pascisci, *stos.*
Pagina, *nb.*
Palatium, *fan snf kanel.*
Pallium, *freimbed.*
Pallere, *gog.*
Palma, *shunu baga snf smv.*
Par, *slvnshum.*
Parabola, *slvntrod sagtrod.*
Parare, *sad sitre.*
Parvus, *shvm.*
Pascere, *gum.*
Passus, *pnbu suma.*
Pater, *pagel.*
Patrimonium, *slnbu slima.*
Patina, *frenfleim.*
Patria, *pratnom.*
Paucitas, *shvmshum.*
Pavire, *gratresv rukresv.*
Pacare, *sprad krus.*
Peccare, *kvs tren.*
Pecten, *sabdrop.*
Pecus, *neik.*
Pedere, *fvsgis.*
Pendere, *bnm dnd.*
Pensum, *spnpu tngo.*
Penetrare, *dob blnn.*
Pera, *from.*
Perire, *sofiav sofshan.*
Perficere, *sisresv shem.*
Peripheria, *eb.*
Peritia, *tem ten prim.*
Pernio, *grugsmor.*
Perperus, *shim tren.*
Pessulus, *up.*
Petra, *nnfind.*
Petulans, *prig put.*
Philosophia, *tem, temtef.*
Phlegma, *ran.*
Pius *skas skam.*
Piger, *prip.*
Pila, *mnb spaf.*
Pileus, *freimmeis.*
Pingo, *trin fnd.*
Pinguis, *gad ef gnn.*
Pinaculum, *mub.*
Pistillum, *sabdib dif.*
Placeo, *spag ped.*
Planus, *grat.*
Platea, *dadpnb.*
Plaustrum, *slin.*
Plecto, *dop.*
Pleuritis, *grugfal.*
Pluvia, *nen.*
Poculum, *frrenpraf.*
Podagra, *grugsmvr.*
Pæna, *kof.*
Politia, *keis.*
Pollex, *smus svma vasa.*
Polliceor, *stvm.*
Pompa, *feid stam.*
Pono, *dam dad bns.*
Populus, *uvind.*
Porrigo, *drek.*
Porta, *ak.*
Portentum, *tos shnk.*

Postis, *ep.*
Præceps, *blnm ded.*
Præcipuus, *svf.*
Præda, *kup.*
Prædico, *tin stnn svbtin.*
Prædium, *stib.*
Præjudicium, *svbtag.*
Prælum, *sabdib.*
Præmium, *stnt.*
Præposterus, *shvbsvb.*
Præsepe, *dadpaf.*
Præstigiæ, *shib spak.*
Præstolor, *pun dap*
Prætendere, *pug*
Prævaricari, *tren shib.*
Prandium, *pafu brepdangom.*
Pratum, *lornab.*
Primitivus, *snm.*
Princeps, *kan svf.*
Privilegium, *kebstrnn.*
Procella, *dam shek.*
Proclivis, *blnm ded.*
Procus, *pon tun stef.*
Procul, *shvmbem.*
Prodigium, *pom.*
Prophanus, *skram skar.*
Proficio, *sig sim.*
Profiteor, *tim kig pem.*
Prodigus, *trvbpok.*
Progenies, *pagolli.*
Prohibeo, *tup shomtup.*
Promineo, *brap blnm.*
Promiscuus, *shud.*
Promptus, *sit.*
Promontorium, *rub snf nom.*
Prosper, *sak sima.*
Proverbium, *tinu sugæ.*
Prudentia, *tef teg.*
Pruna, *ov nnma.*
Prurio, *grugdin.*
Puer, *uvvn.*
Pulvis, *mamind.*
Pupilla *mnb suf mns.*
Purgo, *sif.*
Pus *grvp.*
Pustula, *grvgmnbinf.*
Puto, *tag tat.*
Putris, *grvp.*

Quadra, *vornb.*
Quatio, *damresv.*
Quatenus, *son.*
Qualis, *ev sns geis.*
Quisquiliæ, *shif.*

Racemus, *ragsnug.*
Radius, *mnm.*
Rado, *dom din.*
Ranceo, *grvp.*
Rapio, *dos dvf.*
Rastrum, *flnn.*
Ratio, *tap sas.*
Raucus, *gruggig.*
Reus, *kvs.*
Recens, *dab.*
Reciprocus, *snt.*
Recordor, *pen.*
Recreo, *sprnt.*
Reddo, *senspnb.*
Reformo, *senshan sendab.*
Rego, *sud pnt kan.*
Regnum, *kan.*
Relinquo, *suf.*
Remedium, *saf gug.*
Repagulum, *up.*
Reparo, *senshan sendab.*

Repentinus, *pun dŋn.*
Repo, *pŋf.*
Respublica, *sten stŋbu stŋna.*
Restis, *fŋm.*
Resurrectio, *sengvp.*
Rete, *fremspat.*
Rheda, *flin.*
Rigo, *gan.*
Ripa *ŋb snf ris.*
Ringo, *drit nassi.*
Ritus, *stam.*
Rivus, *rir.*
Robur, *sef dŋb.*
Rodo, *din nas.*
Rogo, *tun tid.*
Ros, *nen grafa.*
Rostrum, *meis snf neip.*
Rota, *mab.*
Rotundus, *mŋb.*
Rubeo, *god.*
Rubigo, *grvp.*
Ructo, *grugnemsnal.*
Rudis, *softem gat stran.*
Rudo, *panu snf nŋkpim.*
Ruga, *dek.*
Rumor, *tip.*
Rumpo, *don.*
Ruo, *ded.*

SABBATUM, *danve vaisa.*
Sacer, *skam.*
Sacrilegium, *kvnskas.*
Sacerdos, *skagel.*
Sal, *nafgrŋf.*
Salarium, *frennafgrŋf.*
Saltem, *shvf.*
Sanctus, *skam.*
Sapo, *sansif.*
Sarcio, *senshan saf sis.*
Satur, *dag.*
Saucius, *grug.*
Saxum, *nŋfind.*
Scaber, *gat.*
Scabies, *gruggrvpinf.*
Scamnum, *frin dadpŋk.*
Scandalum, *sprag.*
Scando, *dred.*
Scateo, *dot gak rir.*
Scelus, *kvs.*
Sceptum, *sabdrŋd snf kanel.*
Scheda, *mem snf fŋf.*
Schisma, *dos kvd.*
Schola, *fantrib.*
Scintilla, *mamnŋm..*
Scopæ, *sabsif.*
Scopulus, *nŋfind.*
Scoria, *grvpu snf nef.*
Scortor, *kvf.*
Sculpo, *trin dom.*
Scutum, *fvp.*
Sebum, *ref.*
Secretus, *fofpem dit strŋn.*
Seculum, *danial vali dansŋp.*
Securis, *sabdom.*
Securus, *snb prip.*
Sedeo, *pŋk.*
Sedo, *sprad.*
Sedulus, *pum pip.*
Semita, *dadpŋb.*
Senex, *uv draba uvvu.*
Sentina, *sabdebnim.*
Sentio, *peis.*
Sententia, *trod tag.*
Sepelio, *brennom dit.*
Sepio, *ip beg.*
Septentrio, *bref.*

Sera, *sabdrog up.*
Serica, *san snf frem sneipa.*
Sermo, *tin trod.*
Sero, *gup.*
Serra, *sabdom gata.*
Setæ, *am.*
Severus, *prid pin.*
Sibilo, *grid panu snf nuk.*
Significo, *tos.*
Sileo, *softin.*
Similis, *slun.*
Simulacrum, *slun fnd.*
Simus, *musbrab.*
Sindon, *fremsnud.*
Singularis, *sum shnk.*
Singultio, *grugdeksnal.*
Sino, *slaf.*
Sinus, *rnb snf is.*
Siphon, *fam.*
Sisto, *dram dus.*
Sitio, *pebpraf.*
Situs, *bns grup shif.*
Solea, *ab snf smur.*
Sollennitas, *stnm.*
Sollicitus, *pum pip.*
Solidus, *gad graf.*
Solor, *trug.*
Solum, *ab sum.*
Solus, *sum ster.*
Somnio, *prab pef.*
Sorbeo, *paf.*
Sordeo, *shif.*
Soror, *stebprag vasa.*
Sors, *sak.*
Spatium, *bem.*
Species, *tlob shan.*
Specimen, *tnb preg.*
Spectrum, *mnsor profre.*
Specus, *ol.*
Sperno, *prop.*
Spina, *af snf far.*
Spinter, *dop drod.*
Spisso, *gaf gad.*
Splendeo, *gom.*
Spondeo, *stum.*
Sponsus, *stef.*
Spongia, *sabsif.*
Spuma, *memmnbind.*
Spuo, *ran.*
Spurius, *shib pagol sofstef.*
Stagnum, *lir.*
Stamen, *fram.*
Statuo, *tag trun.*
Statura, *bam tng.*
Sterquilinium, *shifind emind.*
Sterno, *dit dedresu.*
Sternuo, *grug sifmus.*
Sterto, *grugprabpan.*
Stillo, *mam ded.*
Stimulo, *dik.*
Stipo, *krum prnp.*
Stipula, *lnd rnd.*
Stiria, *mnm mob snf nimgub.*
Sto, *bnm.*
Stabilio, *dramresu, keb.*
Stomachus, *snal.*
Strabo, *grug brnfmns.*
Stragulum, *freimfrun.*
Stramen, *lnd snf nob nub.*
Strangulo, *shafpam sofpam.*
Strepo, *gis gig.*
Strideo, *gis gig.*
Stringo, *dib.*
Strophialum, *fremsmus freimsifmus.*
Struma, *grugmnb meir.*
Struo, *feinesu drot.*

Studeo, *tat.*
Stupa, *snvd sir.*
Stupeo, *pom grugsofpeis.*
Stuprum, *kvf.*
Stylus, *ex sabtrin sestrin.*
Suadeo, *tut tub.*
Suavis, *gem sip.*
Subitus, *sofpun dnn.*
Submergo, *brednimesv brennim.*
Subsido, *ded dam bns ab.*
Subula, *sabdob.*
Succedo, *shvb.*
Sudus, *gon sofies.*
Sufficientia, *slvd.*
Suffulcio, *dnd.*
Sugo, *deb drid.*
Sulcus, *dripu snf flan.*
Summa, *sun.*
Suo, *dros.*
Superbus, *trvbpop.*
Superfluus, *svd.*
Supero, *svn kut.*
Sura, *smer.*
Surdus, *grugsofmnr.*
Sursum, *dred bns ben.*
Suscito, *pabresv.*
Suspiro, *grugsheppam.*
Susurro, *trin grid.*
Sylva, *dadsneig sneigind.*
Symbolum, *tos.*
Syncerus, *sib sofpug.*

TABEO, *gruggrvpslns.*
Tabula, *fef.*
Taceo, *softin.*
Tædeo, *spnt.*
Talis, *lelsns lolsns.*
Talus, *af snf smvr brapa.*
Tango, *brem gas.*
Tela, *frem.*
Temerarius, *softvn.*
Temno, *prop.*
Temo, *shundvn snf stin.*
Templum, *fansava.*
Tempestas, *dan damu snf nem.*
Tendo, *drek damesv bns.*
Tenor, *sud shan sot.*
Tento, *preg tnb.*
Tepidus, *glam.*
Terebro, *dob.*
Tergo, *sif din.*
Tergum, *nf far.*
Terminio, *bep shem.*
Tessera, *tos mnb spafa.*
Testa, *frnn noma mem gaba.*
Texo, *dop fremresv*
Theatrum, *dadfad.*
Thesaurus, *fum stnb.*
Thorax, *freimfeis.*
Tibialia, *freimsmer.*
Tingo, *gos.*
Tinnio, *gis nef.*
Titillo, *dinped.*
Titubo, *pnb brnf shaf pnb.*
Titulus, *mam ked.*
Toga, *freim bam.*
Tolero, *prod slaf.*
Tondeo, *dom.*
Tono, *gis.*
Torculare, *sabdib.*
Tormentum, *pred.*
Torno, *temdomesv mnbai.*
Torpeo, *spnt drnn.*
Torqueo, *mabdamesvr.*
Torques, *frvm begmei.*
Torrens, *ris.*

Torreo, *nnm gud.*
Torvus, *pit prid.*
Trabs, *ap.*
Tranquillus, *dram.*
Tremo, *profdam.*
Tribunal, *frinknm.*
Tributum, *fumkan.*
Tripudio, *tempng.*
Tristis, *prob.*
Triumpho, *fed.*
Trochus, *sabspaf moba.*
Trudo, *did.*
Tuber, *grugbrap.*
Tubus, *fam.*
Tueor, *krum.*
Tumeo, *brap drek.*
Tumultus, *grim dimu snf uvvi shuga*
Tundo, *dig did.*
Tunica, *freimseis.*
Turba, —— *ind shum.*
Turbo, *er mabdan.*
Turris, *fankus fanfub.*
Tyrannus, *kanel pita.*

Vaco, *drag sofspnp.*
Vadum, *dradpraf snf ris.*
Vagus, *sofstid trenpnd*
Vah, *prob.*
Valetudo, *gug.*
Vannio, *nemsif.*
Vanesco, *sofslem mnsosu.*
Vapor, *nein.*
Vapulo, *dig kof.*
Varius, *slom.*
Vasto, *drag sofstid.*
Ubertas, *gun.*
Udus, *gan.*
Vectis, *sabdeg.*
Vegetus, *gugsprnt.*
Vehemens, *svm pin.*
Vellus, *ditu ama snf nekpim.*
Vendico, *krib.*
Venenum, *shnpre.*
Veneror, *skaf.*
Venia, *stup.*
Venor, *pnt spnm.*
Ventus, *er.*
Ver *danguf.*
Verbero, *dig.*
Verbum, *trom.*
Verecundus, *tubpog.*
Verro, *sif din.*
Verruca, *grugbrapinf.*
Vertebræ *drosu snf smeis.*
Vertex, *rab.*
Vertigo, *grugdebrin.*
Veru, *ib fleimgud.*
Vesper, *shemu snf dangom*
Vestigium, *dipu snf smur.*
Vexillum, *toskus.*
Vexo, *ship.*
Via, *dadpnb.*
Vibex, *dipu snf domu snf nf.*
Vibratio, *dam den.*
Victima, *skag.*
Vicus, *dabpnb brana.*
Vicinus, *sted shvm bem.*
Video, *mnsosu peisgosesu.*
Vigeo, *gud sprnt.*
Vilis, *prop stnd shuma.*
Villa, *fanind shvma.*
Villus, *am.*
Vincio, *drod.*
Vinum, *adsnug.*
Violo, *shin kvm.*
Virga, *mnmdig.*

Virgo, *pragal sofpragel.*
Viscus, *vd gapa.*
Vito, *pub snb shaf.*
Vitulus, *nokflanva.*
Ulciscor, *pvd.*
Ulcus, *grugbrapgrvp.*
Ullus, *av.*
Ultimus, *shvb.*
Umbra, *gron.*
Uncus, *sabrnbdvf.*
Ungo, *din dit dot.*
Unctuosus,
Universalis, *sug.*
Unusquisque, *sunsum sunshun.*
Vola, *shun baga snf smvs.*
Volvo, *deb.*
Vomo, *dragesv snal.*
Voveo, *stvm.*
Urbs, *fanind.*
Urna, *fren noma.*
Uro, *nnmesv.*
Uter, *lul snf vn av.*
Utrum, *tid.*
Utor, *sab slam sig.*
Usurpo, *stibesv shom keb kef.*
Vulgus, *uvvi strnfa.*
Vulnero, *dom.*
Vultus, *mar.*
Uxor, *stefprag.*

Zelotypus, *pup.*
Zona, *eb mab.*
Zythum, *flnm nvba.*

Sequitur ſpecimen Artis inſtituendi Nomina Speciebus Naturæ ſignificandis, complectens præcipuas Notiones ſub Genere *Concreti Physici* contentas, quæ in S. Sc. occurrunt: Et hæc Exempla inſtar Regulæ ſint, ſecundum quam omnium aliarum hujuſmodi Notionum Nomina inſtituenda ſunt.

Naf Medium Minerale.

Carbo, *nafgrofnnm.*
Sulphur, *nafgobnnm.*
Sal, *nafgrnf.*
Argilla, *nafgap.*

Nnf lapis Vulgaris.

Silex, *nnfgab nnfnnm.*
Pumex, *nnfgraf.*
Tophus, *nnfgrap.*
Magnes, *nnfdeb nefgab.*
Cos, *nnf bnbre.*
Alabaster, *nnfgofgrat.*
Marmor, *nnfgrat.*
Gypsum, *nnfrnp.*
Coralium, *nnfgod.*
Vitrum, *nnfgvbnnm.*
Crystallum, *nnfgvbnnm gona.*
Gagates, *nnfgen.*

Gemma Snnf.

Adamas, *snnfgab.*

Sapphirus, *snŋfgrob.*
Achates, *snŋfshumgos.*
Jaspis, *snŋfgrod.*
Carbunculus, *snŋfnŋm.*
Amethystus, *snŋfgrog.*
Chrysolithus, *snŋfgob.*
Smaragdus, *snŋfsumgrod.*
Topazius, *snŋfgromgom.*
Chalcedonius, *snŋfgof.*

Metallum Nef.

Aurum, *nefsis.*
Argentum, *nefgofsis.*
Stannum, *nefgofsil.*
Plumbum, *nefgofsir.*
Cuprum, *nefgod.*
Æs, *nefgob.*
Ferrum, *nefgab.*

Herba Neib.

Gramen, *nab.*
Cæpe, *nebgŋn agmuba.*
Allium, *nebgŋn agbana.*
Cucumis, *nib muba.*
Cucurbita, *nib moba.*
Melo, *nib suma.*
Malva, *nŋbiagban.*
Triticum, *nubsim.*
Hordeum, *nubflŋm.*
Taba, *nobsufbab.*
Zizania, *nobshuf.*
Pisum, *nobsluf.*
Sinapi, *nubgrŋm.*
Lilium, *nadsin.*
Viola, *nŋdgem.*
Urtica, *snud oda.*
Linum, *snud ruggrata.*
Cannabum, *snud sufa.*
Cicuta, *snŋdgen.*
Mentho, *snaibges.*
Hyssopus, *snedgem.*
Cuminum, *snŋdgem.*
Coriander, *snŋd rugbag.*
Nardum, *snaib aggob.*
Balsamum, *snaibgem.*
Nad, *agsubrag.*
Aloes, *snudgrem.*
Laurus, *neggem.*
Erica, *nag grunnom.*
Ruta, *naggen.*
Thymum, *naggem.*
Rosa, *nŋg lagsin.*

Arbor Sneid.

Fraxinus, *snagsum bamrug.*
Tremulus, *snag agdam.*
Salix, *snag ŋglag.*
Quercus, *snŋgsum.*
Abies, *sneg bab.*
Ficus, *snug agban.*
Cedrus, *snegbam.*
Castanea, *snig aggat.*
Pomum, *snug.*
Pyrus, *snug ragmob.*
Morus, *snug lading.*

Bruta Exſanguia.

Apis, *snapgŋm.*
Culex, *snŋpshuf.*
Cicada, *snŋkspan.*
Pulex, *snŋkpŋg.*
Pediculus, *snŋkuv.*

Formica, *snŋkpeg.*
Aranea, *snŋkflam.*
Limax, *snakdrŋn.*
Vermis, *snak.*

Avis Neip.

Aquila, *napsvf.*
Cignus, *nupsvf.*
Columba, *nipprin.*
Gallus, *nippot.*
Pavo, *nipsin.*
Hirundo, *neipdŋn.*
Vespertilio, *nŋpbŋppŋn.*
Alauda, *nepbenpŋn.*
Phœnix, *neipva.*
Cuculus, *nepsompan.*
Ardea, *nvpsvmspis.*
Corvus, *napgrof.*
Regulus, *neipshŋf.*
Strutheocamelus, *neipsvf.*

Quadrupes Neik.

Equus, *nekpot.*
Elephas, *nŋksvf.*
Asinus, *nŋkpim.*
Mulus, *nŋksofpad.*
Camelus, *nekbrapfar.*
Unicornis, *nekivmva.*
Bos, *nekflan.*
Cervus, *nekdŋn svna.*
Dama, *nekdŋn shvna.*
Canis, *nikprim.*
Lepus, *nokdŋn svna.*
Cuniculus, *nokdŋn shvna.*
Leo, *nikpot.*
Pardus, *nikshvmgos.*
Sus, *nekshif.*
Felis, *nokditiem.*
Crocodilus, *naksofnar.*
Chamæleon, *nakshŋdgos.*

Sequitur Praxis,

PRAXIS.

PRIMUM CAPUT GENESEOS.

1. Dan ſemu, Sava ſameſa Nam tɴn Nom.

2. Tɴn nom aveſa ſof-ſhana tɴn draga, tɴn gromu aveſa ben mem ſɴf bafu: tɴn ʋv ſɴf Sava dameſa ben mem ſɴf nimmi.

3. Tɴn Sava tineſa, gomu aveſo: tɴn gomu aveſa.

4. Tɴn Sava mɴſeſa gomu ſima: tɴn Sava doſeſa gomu dos gromu.

5. Tɴn Sava toneſa gomu Dan-gomu, tɴn toneſa gromu Dan-gromu: tɴn ſhem-gomu tɴn ſem-gomu aveſa dan-ve vaſa.

6. Tɴn Sava tineſa, dad-dreku aveſo bred brepu ſɴf nimmi: tɴn doſeſo nimmi dos nimmi.

7. Tɴn Sava ſameſa dad-dreku, tɴn doſeſa nimmi bren dad-dreku dos nimmi ben dad-dreku: tɴn lel-ſɴs aveſa.

8. Tɴn Sava toneſa dad-dreku, Nam: tɴn ſhem-gomu tɴn ſem-gomu aveſa dan-ve vɴſa.

9. Tɴn Sava tineſa, nimmi bren nam dekoſo bred dadu ſuma, tɴn granar mɴſoſo: tɴn lel-ſɴs aveſa.

10. Tɴn Sava toneſa granar Nom, tɴn toneſa deku ſɴf nimmi, Iſſi; tɴn Sava mɴſeſa lolar ſima.

11. Tɴn Sava tineſa, nom gʋpeſo nab, neibeid gune rug, tɴn rag-ſneig gune rag ſos ſugu lʋla, rug ſef lul tim bred lʋl ben nom: tɴn lel-ſɴs aveſa.

12. Tɴn nom guneſa nab, neibeid gune rug ſos ſugu lʋla: tɴn ſneig gune rag, rug ſɴf lul tim bred lʋl, ſos ſugu lʋla: tɴn Sava mɴſeſe lolar ſima.

13. Tɴn ſhem-gomu tɴn ſem-gomu aveſa dan-ve veſa.

14. Tɴn Sava tineſa, gommu aveſo bred dad-dreku ſɴf Nam ſham doſeſʋ dan-gomu dos dan-gromu: tɴn lelli aveſo ſas dannu, tɴn dan-veſſi, tɴn dan-vuſſi.

15. Tɒn lelli avefo ſas gommu bred dad-dreku ſɒf nam, ſham gomefu ben nom: tɒn lel-ſɒs avefa.

16. Tɒn Sava ſamefa vɒ gommu ſuma, gomu ſuna ſham ſudefu dan-gomu, tɒn gomu ſhuna ſham ſudefu dan-gromu: tɒn ſamefa affi.

17. Tɒn Sava dadefa lelli bred dad-dreku ſɒf nam ſham gomefu ben nom.

18. Tɒn ſham ſudefu dan-gomu, tɒn dan-gromu, tɒn dofefu gomu dos gromu: tɒn Sava mɒſefa lolar ſima.

19. Tɒn ſhem-gomu, tɒn ſem-gomu avefa dan-ve vofa.

20. Tɒn Sava tinefa, nimmi ſum-gunefo neit, tɒn neip pɒme bred dad-dreku ſɒf nam ben nom.

21. Tɒn Sava ſamefa nutti ſuma, tɒn neipteik ſun-ſuma pɒne, lul nimmi ſum-gunefa ſos ſugu lulla tɒn neip ſun-ſuma ſpifo ſos ſugu lula: tɒn Sava mɒſefa lolar ſima.

22. Tɒn Sava tufefa lelli tine, gunefo tɒn ſuſ-ſunofo, tɒn dagefo nimmi ſɒf iffi tɒn neippi ſuſ-ſunofo ben nom.

23. Tɒn ſhem-gomu tɒn ſem-gomu avefa dan-ve vufa.

24. Tɒn Sava tinefa, nom gunefo ſneikki tɒn neikki ſos ſugu lulla: tɒn lelſɒs avefa.

25. Tɒn Sava ſamefa neikki tɒn ſneikki ſos ſugu lulla: tɒn Sava mɒſefa lolar ſima.

26. Tɒn Sava tinefa, lalli ſamefo Uv ſos ſagu lalla ſos ſlunu lalla: tɒn lelli kamefo neitti ſɒf is, tɒn neippi ſɒf nem, tɒn neikki, tɒn nom ſuma, tɒn ſneik ſunſuma pɒfe drɒd nom.

27. Tɒn Sava ſamefa uv ſos ſagu lula, lelil ſamefa lelil ſos ſagu ſɒf Sava, lelil ſamefa lelilli pagel tɒn pragel.

28. Tɒn Sava tufefa lelilli tɒn tinefa ſhod lelilli, gunefo, tɒn ſuſ-ſunofo, tɒn dagefo nom tɒn kamefo lela, tɒn kamefo neitti ſɒf is, tɒn neippi ſɒf nem tɒn neikki tɒn ſneikki ſɒf nom.

29. Tɒn Sava tinefa, puf, lal ſpɒbefa ſhod lɒlli neibeid ſuma gune rug, lul tim ben mem ſɒf nom ſuma tɒn ſneig ſuma lul gunefi rag tɒn rug, lɒlli ſɒgefu lella ſɒt fleim.

30. Tɒn lal ſpɒbefa, ſhod neikki ſuma, tɒn neippi ſuma tɒn ſneikki ſuma, neibeid groda ſuma ſɒt fleim: tɒn lel-ſɒs avefa.

31. Tɒn Sava mɒſesa avvi ſuna lul ſamefɒ: tɒn puf, avefa ſum-fima: tɒn ſhem-gomu tɒn ſem-gomu avefa dan-ve vufa.

Psalmus Primus. *Tudu vasa.*

1. Uv tim tufo lul trim pnbefi ſos tutu ſnf ſimalli tnn trim bnmefi bred dadpnbu kuſelli, tnn trim pnkefi bred dadpnku ſnf uvvi ſtrabemp.

2. Sor, lelil pobefi ſhop kebu ſnf kamel, tnn tateſi ſhop kebu lela dangom tnn dangrom.

3. Sas, lelil aveſu ſlun ſneig gube ſumbem riſſi ſnf nimmi lul ragreſu dan danu ſima: ag lula trim grudeſu; tnn lullulir lelil ſodeſu, ſimeſu.

4. Kuſelli, trim lolſns, ſor tim ſlun ig, lul nnn dideſi.

5. Lelſas ſimalli trim bnmeſu bred dadknmu, tnn kuſelli bred ſteſu ſnf ſimalli.

6. Sas, kamel pemeſi ſoddu ſnf ſimalli, tnn ſoddu ſnf ſhimalli ſofavroſu.

Tudu vnsa.

1. Lulsas ſtenni podeſi, tnn uvvi takeſi ſofſhamar.

2. Kanelli ſnf nom ſlubkudeſi, tnn kamelli ſlubſteſeſi ſhom Saſva, tnn ſhom pagol lnla.

3. Lalli doneſo ſabdroddu lella, tnn deneſo ſnmmi lella bem lalli.

4. Lelil lul ſtideſi bred Nammi ſpameſu, Saſva ſtrabeſu lelli.

5. Leldan lelil tineſu ſhod lellil podai, tnn ſhipeſu lelli ſas podu lula ſuma.

6. Lal dadeſu kanel lala ben Zionoi or lala ſkama.

7. Lal pemreſu trunor, Saſva tineſa ſhod lal, lnl tim pagol lala: lal pageſa lnl lol-dangom.

8. Tuneſo lal, tnn lal ſpnbeſu ſhod lnl, ſtenni ſtimu lnla, tnn beppu ſnf nom ſtibu lnla.

9. Lnl difeſu lellil ſab ſabdonu nefgaba, tnn doneſu lellil ſhunnu, ſlun fren noma.

10. Lelſas, lnlli Kanelli tefeſo loldan: lnlli Knmelli ſnf Nom tiboſo.

11. Krameſo Saſva profai, tnn pobeſo damprofai.

12. Neiſeſo Pagol, ſham lelil trim podeſu, tnn lnllil ſhnproſu bred dadpnbu: luldan podu lnla nnmeſu, ſunilli lul tupeſi lnl tim ſkana.

Tudu vesa.

1. Lɴl Saſva, lulſɴs ſtretelli lala ſhumroſi? lulſɴs ſhumalli prɴkeſi ſhom lal?

2. Sumalli tineſi ſhod Eiv lala, Saſva trim ſafeſu lelil.

3. Trimſhaf, lɴl Saſva tim fʊp lala, progu lala, tɴn benrel ſɴf meis lala.

4. Panu lala paneſa Saſva, tɴn lelil mɴreſa lal, bred or lɴla ſkama.

5. Lal pɴkeſa tɴn prabeſa, tɴn ſenprɴkeſa: ſas, Saſva ſhadeſa lal.

6. Lal trim profeſu uvvi valili lul begeſu lal.

7. Kamel, prɴkeſo: Saſva lala ſafeſo lal: ſas, lʊl digeſa afnos ſɴf ſtretelli lala ſuna; lɴl doneſa naſſi ſɴf ſhimalli.

8. Sɴbu tim ſɴf Saſva tɴn lɴl tufeſi uvvi lɴla.

Tuda vosu.

1. Lɴl Saſva lul ſkamreſi lal, mɴreſo lal luldan lal paneſu: lɴl ſɴbreſa lal, luldan lal ſhipoſɴ: priteſo lal, tɴn mɴreſo ſkadu lala.

2. Lɴlli pagolli ſɴf uvvi, lulſlemdan lɴlli ſhɴdeſu progu lala ſɴt pogu, pone ſoffigu, tɴn ſpɴme ſhibbu.

3. Sas, lɴlli pemeſo, Saſva tʊdeſa ſimal ſham lʊlil: Kamel mɴreſu luldan lal paneſu lelil.

4. Pʊgeſo, tɴn trim kʊſeſo: tɴbeſo fleſſi lɴlla ben frunni lɴlla, tɴn prodeſo.

5. Spɴfeſo ſkaggu ſɴf kefu, tɴn tʊpeſo Kamel.

6. Shumalli tineſi lulil ſaſeſu lalli mɴſeſʊ ſimar ava? Kamel, ſaſeſo gomu ſɴf mar lɴla gomreſʊ lalli.

7. Lɴl ſaſeſa lɴl ſɴgeſu pobu ſuna ſɴf fles, lulai lelilli ſɴgeſa, luldan nʊb tɴn flɴmſnug lella ſʊmroſe.

8. Lal pɴkeſu, tɴn prabeſu kruſai: ſas, lɴl Kamel ſuma ſaſeſi lal ſtideſʊ ſɴbai.

Tudu vʊsa.

1. Kamel, mɴreſo trommi lala, tedeſo tatu lala.

2. Kanel lala, tɴn Saſva lala, ſʊm mɴreſo ſʊmpanu lala: ſas lal ſkadeſu lɴl.

3. Kamel, lɥl mɥrefu panu lala dan femdangom; lal fkadefu lɥl dan femdangom, tɥn pudefu.

4. Lulfas, lɥl trim Safva, lul ponefi fhimu: tɥn fhimal trim ftidefu dap lɥl.

5. Trefalli trim fɥddapefu bef mɥffi lɥla: lɥl pronefi kʊfelli funa.

6. Lɥl fhɥprefu lelilli lul tinefi fhibu: Kamel fʊmpronefu uv ɥnpebemp tɥn fpakemp.

7. Slom, lal prɥdefu bred fan lɥla fas prittu lɥla fʊma tɥn lal profe lɥl, fkafefu bɥ; Fanfkaf lɥla fkafa.

8. Kamel, pɥrefo lal, fos fibu lɥla fas ftretelli lala; babrefo dadpɥbu lɥla bef mar lala.

9. Sas fibu ava trim bred neis lɥlla, fhunnu breda lɥlla tim fhimu funai; neir lɥlla tim fanfhɥpu dogo, nar lɥlla pʊpefi.

10. Safva, fhɥprefo lelilli; lelilli dedefo flam tuttu lʊlla: beddenefo lelilli fas kuffu lella fʊma, fas lelli kʊbefa fhom lɥl.

11. Shom, funalli lul tʊpefi lɥl pobefo: lelli fundan fʊmpanefo fas pobu: fas lɥl krumefi lelli: tɥn lelli lul ponefi tonu lɥla, pobefo fas lɥl.

12. Sas, lɥl Kamel, tufefu fimal; ponu lɥla krumefu lelil flʊn fʊp.

Fabula Æsopi 17. *Shop Neiteikpɥggi tɥn Kanel lʊlla.*

Stenu fɥf neiteikpɥggi, luldan fofkrama, tunefa Jupiteroi famefʊ Kanel fham lelli. Jupiteroi ftrabefa tunu fɥf neiteikpɥggi. Trimfhaf, lelli tunefa fenai tɥn fenai flemdan lelil tumofe; lelil dedrefa ap: ap dɥma damrefa nimmi tɥn famefa grimu fʊma. Neiteikpɥggi profro foftinefa; lelli fkafefi Kanel lʊlla, Lelli prɥdefi fhʊmbem lelil fhʊmai tɥn fhʊmai: Shemai, lelli fofprofe dredpɥgefi drɥd lelil tɥn dedpɥgefi fenai. Kanel pripa ftrabofi tɥn propofi: Lelli fentunefi Jupiteroi famefʊ Kanel pota fham lʊlli. Jupiteroi famefi nʊpbammeir Kanel lʊlla. Lelil pɥbe drɥd nom gana fʊmpotai pafefi neiteikpɥggi fʊna lul fpɥnefi. Leldan neiteikpɥggi fpabefa foffhamai fhop pitu fɥf Kanel lʊlla. Jupiteroi trim mɥrefi lelli; fas, lelli fpabefi flem danve lola. Sas, luldan nʊpbammeir dramefi dan fhemdangomu, lelli pɥdefi bed olli lʊlla tɥn panefi: lelli fpanefi fhod fofmɥrel. Sas, lolar tim tʊfu fɥf Jupiteroi, lelli lul tunefi fhom Kanel prina fɥgefu Kanel pina.

FAB. 41. *Shop nukpun tnn nukprim.*

NUKPUN tunesi nukprim spnbesu shod lel shunu snf om lula sham ditesu fussi: sas, lelar dnmese lel, lul sigesu tnn stnfesu lul. Nukpun tridesa, lul trim snges av ava suda, tnn lul tudesu sub om lula dinesu nom, shub fussi snf nukprim ditosu.

QUANTUMVIS nil dubitem quin posset ingeniosus quilibet debita diligentia adhibita, ex Doctrina hic tradita (cum praxi) in interiora hujus Artis penetrare, si quid tamen alicubi videatur obscurius dictum, paratus ero (si a viris doctis ad hoc rogatus) sensum meum plenius et dilucidius explicare; præcipue in Particularum materia, Structura Orationis, et quarundam Formularum loquendi Analysi Logica. Nec vereor hic afferere, si Juvenes Praxi hujus Artis diligenter intenderent, majorem inde fructum perciperent quam ex lectione multorum voluminum metaphysicorum; illinc enim inanem et inutilem (sine praxi) Artis Theoriam, maximo cum studio et labore, hinc vero usum maximo cum compendio acquirent. Præterea, si illis cordi fuerit quibus est officio Rei Literariæ prospicere, sumptus operi pares facere, Character Philosophicus, Typis aptatus, qui rerum ipsarum immediate sit significativus, parabitur. Singuli autem horum Characterum singularum notionum radicalium in tabulis positarum significativi, paucioribus, ut plurimum, lineis et pennæ ductibus formabuntur, quam singulæ vulgares nostræ literæ alphabeticæ; et eadem erit Ars variandi hos Characteres, qua Soni hic exhibiti diversificantur. Quantum autem scribendi Compendium hinc existet, judicium penes doctos esto.

FINIS.

DIDASCALOCOPHUS

Or

The Deaf and Dumb mans Tutor,

To which is added

A Diſcourſe of the Nature and number of Double Conſonants: Both which Tracts being the firſt (for what the Author knows) that have been publiſhed upon either of the Subjects.

By *GEO. DALGARNO.*

Printed at the THEATER in OXFORD,
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THE INTRODUCTION,

WITH A KEY

TO THE FOLLOWING DISCOURSE.

ABOUT twenty years agoe, I publiſhed, *Latiali* but *rudi Minerva*, a Synopſis of a Philoſophical Grammar and Lexicon, thereby ſhewing a way to remedy the difficulties and abſurdities which all languages are clogged with ever ſince the Confuſion, or rather ſince the Fall, by cutting off all redundancy, rectifying all anomaly, taking away all ambiguity and æquivocation, contracting the primitives to a few number, and even thoſe not to be of a meer arbitrary, but a rational inſtitution, enlarging the bounds of derivation and compoſition, for the cauſe both of *copia* and *emphasis*. In a word, deſigning not only to remedie the confuſion of languages, by giving a much more eaſie medium of communication than any yet known, but alſo to cure even Philoſophy itſelf of the diſeaſe of Sophiſms and Logomachies; as alſo to provide her with more wieldy and mannageable inſtruments of operation, for defining, dividing, demonſtrating, &c.

What entertainment this deſign may meet with in following ages, I am not ſolicitous to know; but that it has met with ſo little in this preſent age, I could give ſeveral good reaſons, which at preſent I forbear, intending, if God bleſs me with life, health, and leiſure, to do this in a more proper place. To me 'tis enough to have the teſtimony of ſome of the learned men of this preſent age,* who are beſt able to judge in things of this nature, that I have there diſcovered a ſecret of art, which by the learned

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* Dr. Seth Ward, now Lord Bishop of Sarum, Dr. John Wilkins, late Lord Bishop of Chester, Dr. John Wallis, Dr. William Dillingham.

men of former ages, has been reckoned among the *desiderata* of learning: to which I may add, that this diſcovery is made from more rational, eaſy, and practicable principles, than ever they imagined to be poſſible.

To this treatiſe I gave the title of *Ars Signorum*, which, in compliance with the dialect of the preſent ſcene, I may properly enough change to Sematology. This ſoon after became a fruitful mother of two ſiſter-germans, *Didascalocophus*, and a *Discourse of double Consonants;* which having lyen as twins in the womb for many years, at laſt two ſevere fits of ſickneſs did midwive them into the world, the latter here in order being ſenior to the other by the ſpace of full ſeven years.

That the argument I have in hand is worthy to be treated of, will readily be confeſſed by all; but how worthily I have handled it muſt be judged by a few, to whoſe candor, paſſing by all apologies, I freely ſubmit. The former treatiſe of Sematology had the univerſality of all mankind for its object, but had nothing to recommend it but conveniency; this of *Didascalocophus* is reſtrained, at leaſt in its moſt proper ends and principal effects, to a ſmall number of mankind, but comes recommended with the ſtrongeſt arguments of charity and neceſſity. But at preſent I will diſmiſs the Mother, and betake myſelf to put the Daughter in a proper dreſs for the following ſcene of action.

The ſoul of man in this ſtate of union depending in its operations upon the bodily organs, when theſe are vitiated, it muſt needs follow that the ſoul itſelf is ſo far affected, as at leaſt to be hindred in her external functions. Being, therefore, to treat of a way to cure a weakneſs that follows humane nature, equally affecting both, I will leave it to the ſkilful phyſician to diſcourſe of the cauſes and cure of the diſeaſe, as it concerns the body, and will apply myſelf to conſider of the means to cure the better part of the man, which is the proper work of a grammarian.

And becauſe the ſubject I have in hand is περὶ ἑρμηνείας, and more particularly one branch of it, which, for what I know, has been hitherto, *ex professo*, treated of by no author, I will firſt mention all the ſeveral wayes of interpretation, whereby the ſoul either doth or may exert her powers; in doing of which I will be obliged to take the liberty of coyning some new words of art, which hereafter I will explain.

It is true that all the ſenſes are intelligencers to the ſoul, leſs or more, for though they have their diſtinct limits, and proper objects aſſigned them by nature, yet ſhe is able to uſe their ſervice, even in the moſt abſtracted notions, and arbitrary inſtitution; but, with this difference, that nature ſeems to have fitted two, *hearing* and *seeing*, more particularly for her ſervice; and other two, *tasting* and *smelling*, more groſs and material, for her dull and heavy conſort, the body; whereas the fifth, of *touching*, is of a middle nature, and in a manner equally fitted for the ſervice of both, as will appear in the progreſs of the following diſcourſe. Wherefore being here to ſpeak of the interpretation of arbitrary ſigns, impreſt by the rational ſoule, and by it alone, upon the objects of the ſenſes moſt fitted for that uſe, I will take notice of the moſt uſual, or at leaſt of the moſt eaſy and practicable wayes of interpretation which either are, or may be.

Here, reflecting upon Ariſtotle's περὶ ἑρμηνείας, and περὶ ψυχῆς, I expected both his help and authority in analyſing the ſeveral kinds of interpretation; but finding little or nothing to this purpoſe in him, neither indeed in any other author of old or new philoſophy, as wee now diſtinguiſh, that I have happened to look in, I was forced to adventure upon the following analyſis for clearing my way, and enabling me to diſcourſe the more diſtinctly on the ſubject argument.

Interpretation, then, in its largeſt ſenſe, is *an act of cognitive power, expressing the inward motions by outward and sensible signs.* Of this there are three kinds, 1. Supernatural, 2. Natural, 3. Artificial or Inſtitutional, to which I give the names of Chrematology, Phyſiology, and Sematology. Chrematology is when Almighty God reveals his will by extraordinary means, as dreams, viſions, apparitions, &c., and this, in the diviſion of Arts, falls under Divinity. Phyſiology is when the internal paſſions are expreſſed by ſuch external ſigns as have a natural connexion, by way of cauſe and effect, with the paſſion they diſcover, as laughing, weeping, frowning, &c. and this way of interpretation being common to the brute with man, belongs to Natural Philoſophy. And becauſe this goes not far enough to ſerve the rational ſoul, therefore man has invented Sematology, that is, an art of impreſſing the conceits of the mind upon ſenſible and material objects, which have not the leaſt ſhadow of affinity to the images

of the things they carry impreſt upon them; and this is interpretation, in the ſtrickeſt and moſt proper ſenſe, and to reduce this wonderful effect of reaſon to ſuch rules of art as the nature of it requires, is the proper ſubject of *Ars Signorum*, which, according to the commonly received diſtribution of Arts, is nothing elſe but a Rational Grammar.

Sematology, then, being a general name for all interpretation by arbitrary ſigns, or, to follow the moſt uſual terms of art, *voces ex instituto*, to any of the ſenſes, it may, from the three ſenſes, of hearing, ſeeing, and touching, whoſe ſervice the ſoul doth chiefly make uſe of in interpretation, be divided into Pneumatology, Schematology, and Haptology.

Pneumatology, or if any think Echology more proper, is interpretation by ſounds conveied thro the ear; Schematology, by figures, to the eye; and Haptology, by a mutual contact, ſkin to ſkin. Pneumatology, again, is divided into Gloſſology and Aulology; Gloſſology is a term proper enough for interpretation by the tongue, which is the firſt and moſt common organ of interpretation, at leaſt in ſociety, and face to face; for man in theſe circumſtances—*effert animi motus interprete Lingua.* Aulology, ſo ſtyled by an eaſy trope, interprets by a muſical inſtrument, which is fully capable of as much and manifeſt diſtinction as the tongue, but not ſo natural and ready an organ.

Schematology is divided into Typology or Grammatology, and Cheirology or Dactylology. By Typology or Grammatology I underſtand the impreſſing of permanent figures upon ſolid and conſiſting matter, which may be done two wayes; either by the pen and hand, or by the impreſſion of ſtamps prepared for that uſe, which makes only an accidental difference between Grammatology and Typology. Cheirology or Dactylology, as the words import, is interpretation by the tranſient motions of the fingers, which, of all other wayes of interpretation, comes neareſt to that of the tongue. Haptology admitting of no medium, nor diſtinction of act and object, but being body to body, doth therefore admitt of no ſubdiviſion. Tho I will not warrant all theſe terms from Acyrology, yet I am ſure that they will both ſave me the labour of periphraſis, and alſo from uſing words leſs proper.

DIDASCALOCOPHUS.

CHAP. I.

A DEAF MAN AS CAPABLE OF UNDERSTANDING AND EXPRESSING A LANGUAGE, AS A BLIND.

THOUGH the ſoul of man come into the world, *Tabula Rasa*, yet is it withal, *Tabula Cerata*, capable, thro ſtudy and diſcipline, of having many fair and goodly images ſtampt upon it. This capacity is actuated by the miniſtry of bodily organs. The organs of the body, ſerving the ſoul in exerting her powers in this ſtate of union, are four, the eye and the ear, the hand and the tongue; the firſt pair fitted for taking in, the other for giving out; both the one and the other equally neceſſary for communication and ſociety.

That the ear and the tongue alone, ſecluding the other two, can perfect a man in knowledge, excepting of ſome few things which are the proper objects of ſeeing, and enable him to expreſs what he knows in vocal ſigns, or a language ſpoken, is known by daily experience in blind people. That an equal degree of knowledge is attainable by the eye, and expreſſible by the hand in characters, or a language written, is no leſs evident in the theory, for the reaſons following.

All ſigns, both vocal and written, are equally arbitrary, and *ex instituto.* Neither is there any reaſon in nature, why the mind ſhould more eaſily apprehend the images of things impreſt upon ſounds than upon characters, when there is nothing either natural or ſymbolical in the one or the other.

Therefore, that blind people ſhould come ſooner to ſpeak and underſtand, than dumb perſons to write and underſtand, is not becauſe there is any more diſcerning faculty in the ear than in the eye, nor from the nature of ſounds and characters, that the one ſhould have a greater fitneſs than the other to conveigh thoſe notions impreſt upon them thro the reſpective doors of the ſenſes into the ſoul; neither that pronounciation of articulate words is ſooner or more eaſily learned than written characters; neither yet, that the ear is quicker in perceiving its object than the eye; but it is from other accidental cauſes and circumſtances, which give the ear many conſiderable advantages, in the matter of communication, above the eye. And yet, even in this particular, the eye wants not its own priviledges, which, if rightly uſed, may perhaps outweigh the advantages on the other ſide. For illuſtrating this, I will compare a deaf man with a blind. 1. The blind man goes to ſchool in his cradle: this ſo early care is not taken of the deaf. 2. The blind man is ſtill learning from all that are about him; for every body he converſes with is a tutor, and every word he hears is a lecture to him, by which he either learns what he knew not, or confirms what he had. The deaf man, not being capable of this way of diſcipline, has no teacher at all; and tho neceſſity may put him upon contriving and uſing a few ſigns, yet thoſe have no affinity to the language by which they that are about him do converſe amongſt themſelves, and therefore are of little uſe to him. 3. The blind man goes through the diſcipline of language in the beſt of his time, childhood, and under the beſt of teachers, women and children: the deaf man is deprived of both theſe opportunities. 4. The blind man learns his language by the by, and *aliud agens;* the deaf cannot attain a language without inſtruction, and the expenſe of much time and pains. 5. The deaf man is confined to the circumſtances of light, diſtance, poſture of body, both in himſelf, and him he communicates with: the blind man is free from theſe ſtreightning circumſtances.

Laſtly, all the advantages the ear has above the eye may be ſummed up in theſe two. Firſt, more opportunities of time; ſecondly, quicker diſpatch, or doing more work in leſs time; both which may be in a great meaſure remedied by ſkill and care; by which, if there were a timely application made to deaf perſons, I conceive they might be more improved in knowledge, and ſo their condition be much more happy than that of the blind, which will appear by the following advantages that the deaf man has above the blind.

Firſt, the deaf man has greater advantages of acquiring real knowledge than the blind; becauſe the eye has greater variety of objects than the ear. 2. The deaf man has a greater certainty of that knowledge he attains by the eye, than the blind can have of that he receives by the ear, for, *Pluris est oculatus testis unus, quam auriti decem.* 3. As he has the better of the other in the knowledge of nature, ſo alſo he exceeds him much in ſpeaking and reading the language of nature: for beſides reading the glory and wiſdom of God in the book of the Creation, he is able alſo to read much of the minds of men in the book of their countenance; which, ſeconded with the poſtures, geſtures, actions of the whole body; more particularly, the indications of the hands, feet, fingers, and other circumſtances, laies open much of their inſide to him; and he, by the ſame dumb eloquence, is able to notifie his deſires to others, of which way of communication the blind man's condition renders him wholly uncapable. So that the one is able to prove himſelf a man, in any ſociety of mankind, all the world over; the other, take him from the company of his country-men, has little elſe left him wherewith to difference himſelf from a brute, but the childiſh rhetorick of Democritus and Heraclitus. But fourthly, to come cloſer to our purpoſe with the compariſon; the deaf man learns a language by art, and exerciſing his rational faculties; the blind man learns by rote, ſo that he gets a language, and he himſelf knows not how. There is, therefore, as great difference in the point of language between a deaf and a blind man, ſuppoſing both to have made an equal progreſs, as between one bred in the Univerſity, and a clown that knows not a letter. Fifthly, though the blind man have the ſtart of the deaf, yet the deaf man will be too hard for him at the long run; for he, after he has once got a competency of

language, will be able to help himſelf, and direct his own courſe in the further purſuit of all real knowledge. On the contrary, the blind man, who in learning a language needed no particular guide, becauſe every body was his guide, now he is at a ſtand, and cannot ſo much as advance one ſtep without one to lead him. Sixthly, the deaf man has this great advantage above the blind, which weighs heavier than all that can be laid in the ſcales againſt it, that he is able to write down his notions, and reflect upon them as often as he will. And now the advantage of having much time for ſtudy, and doing much work in little time, is as much the deaf man's, as at firſt ſetting out it was the blind man's. Seventhly, in the ſuperfetation of language the deaf man will ſooner be impregnate with a ſecond or third language than the blind, inſomuch as one language learned by ſtudy and art, is a greater ſtep to facilitate the learning of another, than the mother tongue, which comes by meer uſe and rote.

CHAP. II.

A DEAF MAN CAPABLE OF AS EARLY INSTRUCTION IN A LANGUAGE AS A BLIND.

Taking it for granted that deaf people are equal, in the faculties of apprehenſion and memory, not only to the blind, but even to thoſe that have all their ſenſes; and having formerly ſhewn that theſe faculties can as eaſily receive and retain the images of things, by the conveiance of figures thro the eye, as of ſounds thro the ear, it will follow that the deaf man is not only as capable, but alſo as ſoon capable of inſtruction in letters as the blind man, and if we compare them, as to their intrinſick powers, has the advantage of him too, inſomuch as he has a more diſtinct and perfect perception of external objects than the other. For the blind man has no certain knowledge of things without him, but what he receives from the informa-

tion of the groſs ſenſe of feeling, which, tho it be a ſure intelligencer, yet is its intelligence very ſcanty; for what he receives by the ear is but a ſecond-hand knowledge, depending upon teſtimony, and the credit of others. So that the advantages I gave the blind man at firſt ſetting out, are not in his own faculties, but from extrinſick and adventitious helps.

Therefore I conceive there might be ſucceſsful addreſſes made to a dumb child, even in his cradle, when he begins—*risu cognoscere matrem*, if the mother or nurſe had but as nimble a hand, as commonly they have a tongue. For inſtance, I doubt not but the words, *hand, foot, dog, cat, hat, &c.*, written fair, and as often preſented to the deaf child's eye, pointing from the words to the things, and *vice versa*, as the blind child hears them ſpoken, would be known and remembred as ſoon by the one as the other. And as I think the eye to be as docile as the ear, ſo neither ſee I any reaſon but the hand might be made as tractable an organ as the tongue, and as ſoon brought to form, if not fair, at leaſt legible characters, as the tongue to imitate and echo back articulate ſounds.

Here it may be doubted, whether it were more adviſable to train up the deaf child in Typology or Dactylology. For the firſt it may be ſaid, that tho the inſtitution is equally arbitrary in both, and therefore equally eaſy to the learner; yet writing is permanent, and therefore gives the young ſcholar time to contemplate, and ſo makes the deeper impreſſion; whereas, pointing to the fingers is tranſient, and gone before it can be apprehended. This made me at firſt incline more to writing, but upon further conſideration I judge the other way much more expedient; for, tho it cannot be denied but the permanency of the characters is in itſelf an advantage, if well improved, yet tranſient motions, if often repeated, make as great an impreſſion upon the memory, as fixt and immovable objects. A clear proof of this we have from young ones learning to underſtand a language from the tranſient motions of the tongue; and, which is yet more difficult, to imitate the ſame tranſient motions, where, neither can the diſtinctions be ſo manifeſt, nor the formation ſo eaſy, as in the hand-language: which, as it confirms me, that pointing to the hand would be the better way of teaching, ſo it makes me think, that

if clofely followed, it might be eafier attained by young ones than fpeaking, infomuch as the motions of the hand are much more eafy than thofe of the tongue.

If here it fhould be objected, that words written are more diftinct, and eafy to be apprehended, for, though confifting of feveral diftinct letters, yet, being joyned, they pafs in this rude difcipline for one individual fign, for our fcholar is fuppofed as yet to underftand nothing of the diftinction of letters; whereas, in pointing to the fingers, the diftinct motions to make up a word will be more manifeft, and fo will be a hinderance to the fcholar's weak intention, to apprehend that which is reprefented by many touches fo diftinctly, under the notion of one word.

To this I anfwer: If we compare the action of writing with pointing to the fingers, this is much more fimple than that, and therefore lefs amufing. But fecondly, if we compare words written with pointing, this is ftill not only more fimple, and therefore more eafily apprehended, but alfo it is as eafy to reprefent a word as one *compositum* with a continued action of the hand, tho there be many diftinct pointings, as to make one word by an aggregate of many diftinct letters. Add to this, that pointing to the hand is capable of more emphafis, for frequent repetition, accompanied with fignificant geftures, will come near to the way of teaching *viva voce*, which inculcates more than the beholding of a ftanding object. But here there is need of caution that we follow the conduct of nature, that is, to begin with words moft fimple and eafy; for we fee that young children, when they begin to fpeak, are not able to pronounce long words, nor yet all letters. But here the only care to be taken is to chufe fhort words, for all letters are equally eafy. Now, before I proceed, I think it will be very proper to add fomething of the eafinefs of the whole tafk, both to remove prejudices in others, and, more particularly, to encourage the careful mother the more cheerfully to undertake it.

There are many mothers who, to their great praife, do teach their children to read, even almoft before they can fpeak. And yet, I hope, it will appear from the following confiderations, that to read and write upon the fingers is much eafier to the learner, than to read and write in books, there being many difficulties in the one which are avoided in the other.

For, 1. In reading, ſingle letters muſt be learned, which are very remote, and abſtracted from ſenſe, as being but parts of a ſign's ſign, e. g. H is the fourth part of the word *hand*, which word written is a ſign of the vocal ſound; the vocal ſound is the immediate ſign of the thing itſelf. 2. Next to this difficulty is the learning to name the ſame letters in the preciſe abſtracted notion of them, *a*, *b*, *c*, *d*, &c. without borrowing names to them from other things, contrary to what the firſt fathers of letters have taught us, as appears by their naming the ſimple elements *Aleph*, *Beth*, *Gimel*, *Daleth*, &c. And here, by the by, I cannot but obſerve, that we Europeans have been ſo dull ſcholars as not to take out the leſſon; yea our wiſe maſters the Grecians, in this particular, are the greateſt dunces of the reſt; for others have been truants and taken out no leſſon, and they have taken it out falſe; for they have named them by barbarous and inſignificant words corrupted from the Hebrew, which is worſe than to name them by their own powers alone. Which hallucination of theirs has a remarkable providence in it; for thereby they have given a convincing proof, and openly confeſſed, though they neither deſigned nor owned any ſuch thing, that the doctors of Athens have learned their a b c at the feet of Gamaliel. And here amongſt ourſelves and neighbouring nations, it is obſervable, that in this point of diſcipline our dames are wiſer than our doctors; for they find a neceſſity of bringing home theſe abſtracted notions to young ones' ſenſes, by borrowing names from known and familiar things. But if there were one way of naming the ſimple elements agreed upon, and this put in all Primers and Hornbooks, it would not only be of good uſe to children and unſkilful dames, but alſo, the thing being celebrated, would give occaſion to ingenious alluſions and metaphors, an inſtance whereof we have in Α and Ω in the Greek. But to return to our purpoſe. A third difficulty in reading is true pronounciation of the ſimple letters. And, 4. joyning them in ſyllables is yet more difficult, the ſingle letters oftentimes either quite loſing or changing their powers. And, 5. the dividing ſyllables aright, and joyning them to make words. All which are ſuch difficulties, that one may juſtly wonder how young ones come to get over them; and how late, and with how great pains they are overcome by ſome, I appeal to thoſe that know what

belongs to the breeding of youth. Now the deaf child under his mother's tuition, paſſes ſecurely by all theſe rocks and quickſands. The diſtinction of letters, their names, their powers, their order, the giving them true ſhape or figure, which anſwers to others pronouncing true, the dividing words into ſyllables, and of them again making words, to which may be added tone and accent; none of theſe puzzling niceties hinder his progreſs. All the teacher has to do, is to go with one continued motion over all the points that make up the word, pointing withal to the things. And at firſt it will be convenient to initiate the young ſcholar with words of few letters and a near affinity; as, *hat*, *cat*, *hog*, *dog*, *hand*, *sand*. It is true, after he has paſt the diſcipline of the nurſery, and comes to learn grammatically, then he muſt begin to learn to know letters written, by their figure, number, and order. But the reſt of the difficulties I have but now mentioned, are proper to the ear, and therefore do not concern him.

And becauſe the advantages the blind man hath over the deaf, are more conſiderably ſuch in the time of childhood, it cannot be denied but the blind child is in a greater capacity of learning the mother tongue than the deaf; yet ſo as ſkill and care might advance the deaf child in a vocabulary of the names of viſible objects much above what the other can be ſuppoſed to get from the common uſe of the mother tongue; for the one is ſtill running the ſame round, in a narrow circle, hearing the ſame words redundantly; the other might be in a conſtant progreſſive motion.

And tho I perſuade myſelf that, ſome time or other, there may be a mother found who, by her own care, and ſuch directions as I am treating of, will lay a good foundation of language in her deaf child, even in the firſt ſtage of his minority; yet, ſeeing this is like to be but a *rara avis*, I will advance our blind and deaf ſcholars to a higher form, and place them under a ſeverer diſcipline than that of the nurſery, which I ſuppoſe none will deny them now able to bear; for I will ſuppoſe them entred in the ſeventh year of their age. Together then with this equality of age, let us ſuppoſe them every other way equal in their natural parts, both faculties and inclinations, under tutors equally both ſkilful and careful; and to make their capacities every way equal, the deaf boy to write as fair

and quick a hand as can be expected from that age. In these circumstances, they are both of them to begin to learn a language, the blind boy Latin, the deaf boy his mother's tongue.

The case being thus stated, it is my own opinion that the deaf boy would come to read and write the mother tongue, both much better and sooner than the blind boy to understand and speak the Latin. For reasons of my so thinking, beside what may be gathered from Chap. I., I will here carry on the comparison between the blind boy and the deaf, in some particulars coming closer to our present case.

1. The blind boy has the advantage of knowing a language already, which is a great help to the learning any second language; for tho there be no affinity between the words of some languages, yet there is something of a natural and universal grammar runs thro all languages, wherein all agree. This contradicts not what I have said to the deaf man's advantage, Chap. I. Num. 6. Because there the blind and deaf are supposed both to understand the mother tongue, when they begin to learn a second language. Here the deaf is supposed to have no language, and the blind to have the mother tongue, which tho by him learned, not by rule, but by rote, yet is it an advantage over him that has none.

2. Beside this notion of natural and universal grammar, which the blind boy hath got with the mother tongue; he not being to learn words for things, but words for words; and it falling out so, that oftentimes there is a great affinity between the words to be learned and the words for which they are to be learned; this makes that he learns with less pains than the deaf boy, who learning words for things, it can never happen that a combination of alphabetical characters making up a word, should have any affinity to, or resemblance of the thing for which it is substituted.

3. Onomatopœia is a great help to the blind scholar; for example, *grunnitus, hinnitus, rugitus, ululatus*, &c. are easier to be learned by the blind man than the deaf; because, as they pass in sounds thro the ear, they are of a mixt institution, partly natural, partly arbitrary; but these same words written in characters are of a meer arbitrary institution, whether they be considered with relation to the immediate, or mediate *signatum*. So that our dumb scholar has nothing to trust to but diligence and strength

of memory: reaſon can do him no ſervice at all, at leaſt ſo far as either primitive words, or words of an irregular inflexion from them extend, which make up the body of all languages. Neither can fancy help him much, which oftentimes is of great uſe by working a connexion between a ſtrange and a known word, becauſe as yet we ſuppoſe moſt words to be ſtrangers to him.

The reaſon of this difference between words ſpoken and written is, becauſe ſpeaking, being before writing, has more of nature and leſs of art in it; for all languages guided by the inſtinct of nature, have more or leſs of Onomatopœia in them, and I think our Engliſh as much as any; for, beſide the naming the voices of animals, and ſome other muſical ſounds, which for the moſt part is done by this figure in other languages, we extend it often to more obſcure and indiſtinct ſounds. Take for example, *wash, dash, plash, flash, clash, hash, lash, slash, trash, gash, &c.* So *grumble, tumble, crumble, jumble, fumble, stumble, bumble, mumble, &c.*, of which kind of words, the learned, and my worthy friend Dr. Wallis has given a good account in his Engliſh Grammar. In all theſe and ſuch like words there is ſomething ſymbolizing, and analogous to the notions of the things, which makes them both more emphatic and eaſy to the memory. But in words literally written, and of a meer arbitrary inſtitution, there can be nothing ſymbolical. But to draw ſomething out of this digreſſion to our preſent ſtated caſe: tho Onomatopœia gives our blind ſcholar ſome advantage over his deaf ſchoolfellow, yet is it ſhort of what it would be if he were learning Engliſh. This is all that at preſent comes into my thoughts to ſay for maintaining the paradox of *a blind guide.* I will now offer my reaſons for giving him the precedency that has two eyes open in his head, which ſeems to be the more plauſible opinion.

1. The deaf man's mind is like clean paper, and therefore takes the impreſſion the more eaſily, fair and diſtinct; whereas the ſcriblings and blottings upon the table of the blind man's memory, as they leave little room for new impreſſions, ſo they breed confuſion, and make him ready to miſtake, when he comes to read them.

2. Words laid up in the deaf boye's memory, are like characters engraven in ſteel or marble; the blind boye's words are but chalked out, or *nigro*

carbone notata, and therefore eafily defaced. For the deaf boy having but one word for every thing he knows, is therefore obliged to reflect upon it as often as he has occafion to think or fpeak of the thing itfelf; and it is this frequency of recognizing words, and ufing them upon all occafions, that makes a man mafter of a language: whereas the blind boy having two words for one thing, the one an intimate and old acquaintance, even *a teneris unguiculis*, the other a ftranger to him; upon all occafions he loves to converfe with his old crony, and keeps at a diftance from the ftranger, unlefs it be at fet times, when force or fear commands his attendance. So that this confideration alone, fpecially if it be feconded with the care and diligence of thofe that are about him, in forbearing all other figns with him but letters, may feem to outweigh all that can be faid for the blind boy.

3. The deaf boy can conn a leffon by himfelf, for *litera scripta manet;* the blind boy can do nothing without one prompting him, for *vox perit.*

Laftly, I think none will deny but that it ftands with reafon, that a deaf fcholar muft be exact in orthography. But for the blind, I know it by experience, that it will be a hard matter to make him fpell true.

CHAP. III.

OF A DEAF MAN'S CAPACITY TO SPEAK.

THAT a deaf man may be taught to fpeak, is no more a doubt to me, than that a blind man may be taught to write; both which I think not only poffible, but alfo not very difficult. I will carry on the comparifon in feveral particulars. 1. Both have the refpective organs, the tongue and the hand, equally entire, and in a capacity to act. 2. Both are equally deftitute of their proper guides, the eye and the ear, to direct them in acting; and therefore, 3. both muft be equally obliged to the fenfe of feeling for direction.

And yet ſo magiſterial are the ſenſes of hearing and ſeeing, that tho the ſenſe of feeling alone may guide the tongue and hand in ſpeaking and writing, after a habit is acquired, yet, for introducing this habit, directions from the eye and ear are neceſſary. And, which is obſervable in this point of diſcipline, the eye and ear ſeem to act out of their own ſphere, and to exchange their ſtations and powers, for the blind man learns to write by the ear, and the deaf man to ſpeak by the eye; from which to infer that community of ſenſes which ſome philoſophers and phyſicians ſpeak of, I think would be abſurd, the external objects ſtill remaining diſtinct: but the true inference from this will be, that the ſoul can exert her powers by the miniſtry of any of the ſenſes; and therefore when ſhe is deprived of her principal ſecretaries, the eye and the ear, then ſhe muſt be contented with the ſervice of her lacqueys and ſcullions the other ſenſes, which are no leſs true and faithful to their miſtreſs than the eye and the ear, but not ſo quick for diſpatch.

But to go on with the compariſon. 4. It will be hard to teach the deaf man to obſerve tone, accent, and emphaſis in ſpeaking; ſo will it be as hard to bring the blind man to write a fair hand, or diverſe hands; yet the one may ſpeak ſo as to be underſtood, and the other write ſo as what he writes may be read. 5. As there may be more ſimple, and therefore more eaſy characters to be written, contrived for the uſe of the blind man, ſo may there ſounds of an eaſier pronounciation than any in common uſe, be invented for the uſe of the deaf. 6. They are equally uncapable, the one of ſinging, the other of flouriſhing and painting. 7. As the deaf man has this advantage above the blind, that ſpeaking, in common commerce and buſineſs, is of more frequent and greater uſe than writing; ſo the blind man comes even again with him in this, that there is one way of writing, and that of great uſe too to the deaf man, which the blind can learn both as ſoon and to as great a degree of perfection as the deaf, whereas the deaf man cannot learn to ſpeak without much time and pains, and yet can never come to perfection in ſpeaking. This way of writing is by an alphabet upon the fingers. 8. As to any direct tendency of improving either of them with knowledge or diſpatch of buſineſs and converſe *in vita communi*, I judge them both equally uſeleſs, or at leaſt of no

very great uſe; becauſe I think ſcarce attainable to that degree of perfection, as to be ready for uſe upon all occaſions. That there may be caſes wherein they may be of great uſe I do not deny.

And of ſeveral that offer themſelves, I will ſingle out that of a blind maſter and deaf ſervant, for ſtating of which the more clearly, I will premiſe; 1. That to read and write is a commendation in a ſervant. 2. It recommends him the more if he be to ſerve a blind maſter. And, 3. if his blind maſter be a man of much buſineſs or learning, this enhanſes his ſervice yet the more. Theſe things premiſed, let our caſe be this.

Blind Homer hearing of an ingenious but deaf ſlave, called Æſop, who was trained up in all the fore-mentioned waies of Sematology, and he himſelf being expert in Dactylology, he reſolved to purchaſe Æſop at any rate. The firſt ſervice he puts him upon, was to write out his Ilias fair, from his own blotted copy; and, becauſe Æſop could ſcarce read his hand, he was alwaies preſent himſelf, correcting the faults of his pen upon his fingers. And here I leave them for a while till I have reſolved another material doubt.

That which is my main deſign in this Treatiſe, to teach how to come to underſtand a language by reading and writing, ſuggeſts to me here to reſolve this queſtion—How a blind perſon might communicate with a dumb? The cauſe of doubting being upon the dumb man's part, I anſwer—The defect of his tongue muſt be ſupplied with a muſical inſtrument, having the letters equally diſtinguiſhed upon the keys or ſtrings, both to the eye of the dumb, and in the ſounds to the ear of the blind; which I take for granted might produce the ſame effects with oral ſpeech. And here it is obſervable, that that ſame action would very properly be both writing and ſpeaking; writing, from the hand of the dumb touching the keys or ſtrings; ſpeaking, to the ears of the blind man, from the ſound of the inſtrument.

After this ſhort enterlude, let us bring Homer and Æſop upon the ſtage again. The old man was mightily pleaſed with Æſop, till, unfortunately, on a certain time, the ſtuttering of his tongue gave Homer occaſion to ſuſpect him of a ly, for which, in a ſudden paſſion, he cuts out his tongue; but afterwards repenting what he had done, reſolved not to put him away,

for he conſidered that he was yet as capable of ſerving him as ever; and perhaps more, the other waies of interpretation that he was ſkilled in being more diſtinct than Gloſſology could be in a deaf man. It happened ſoon after, that Homer had invited ſome friends to dinner, commanding Æſop to provide the greateſt rarities the market did afford. Æſop made a ſhow of great preparation, but ſet nothing upon the table beſide the tip of his own tongue in a large diſh; upbraiding his maſter with his pype, that he did not tear his blotted papers when he could not read them, but had patience till he himſelf corrected them upon his fingers. Homer not enduring this affront before ſtrangers, throws Æſop's pype in the fire. Æſop fearing worſe to follow, throws himſelf at his maſter's feet, taking him by the hand, and by the rules of Haptology begs his pardon, promiſing if he would have patience, to make amends for his fault. Homer ſtartled at this, to find both a tongue and a pype in Æſop's fingers, was tranſported from wrath to fear and admiration, concluding for certain that Æſop was a conjurer, and that he deſerved to be thrown in the fire after his pype. Yet reſolving once more to try his wit and honeſty, and for making ſatiſfaction to his friends who had loſt their dinner, he invites them to return to-morrow, charging Æſop to provide the oldeſt and leaneſt carrion he could find. The night following, Æſop ſerves his blind maſter with *lex talionis*, tongue for tongue, and repeated the ſame dinner to his friends the next day; excuſing the matter, that he had from firſt to laſt obeyed his maſter's commands to the beſt of his judgment. Homer taking it ill to be ſo often outwitted by a ſlave, by Dactylology begs of his provoked friends to revenge him upon Æſop, by plucking out his eyes; that his condition might not be more comfortable than his own. After this, old age and a fit of ſicknefs deprived Homer of his hearing. This reconciled him again to Æſop; for he judged him the fitteſt companion he could find, with whom to bemoan his folly and miſery. After this, they lived good friends, paſſing the time in telling old ſtories; ſometimes upon their fingers' ends, and ſometimes with hand in hand, traverſing the alphabetical Ilias.

This drama being acted according to the rules of art, if there be any certainty in art that the promiſed effects will follow, is no leſs true than it ſeems to be ſtrange. And from this we may learn two things: 1. That

tho hearing and ſeeing be the principal, yet are they not the only ſenſes of knowledg. 2. That the hand is, or at leaſt is capable of being made, a more ſerviceable organ of interpretation to the ſoul than the tongue: for it has acceſs to its miſtreſs's preſence by the door of three ſenſes; 1. Of hearing, by Aulology; 2. Of ſeeing, by both ſpecies of Schematology, to wit, Typology and Dactylology; 3. Of feeling, by Haptology; whereas the tongue can only enter by the door of one ſenſe, and do its meſſage only by one kind of interpretation, Gloſſology.

CHAP. IV.

OF A DEAF MAN'S CAPACITY TO UNDERSTAND THE SPEECH OF OTHERS.

I COME now to the deaf man's capacity of underſtanding the ſpeech of others. That words might be gathered and read, from the tranſient motions and configurations of the mouth, if all the ſeveral diſtinctions of letters were no leſs manifeſt and apparent to the eye than to the ear from the ſpeaker's face, as readily as from permanent characters upon paper, is not to be doubted: but that all the diſtinctions that are perceived by the ear in ſpeaking, cannot equally be perceived by the eye, I will prove by an argument, which tho it be *à posteriori*, yet I hope it will be of evidence and force ſufficient to effect what is thereby intended.

If the ſame diſtinctions of letters and words did appear to the eye from the motion of the ſpeaker's mouth, which are diſcernable to the ear from the articulation of his voice, then it would follow, that the capacity of a deaf man would be equal to that of a dumb, but not deaf, for learning a language, ſo far at leaſt as to underſtand it.

But the capacity of a deaf man is not equal to that of a dumb, for learning a language from ſpeaking.

Therefore all the diſtinctions of letters are not manifeſt to the deaf man, from the ſpeaker's mouth.

The ſequel of the *major* is, I think, clear from what has been ſaid before; there being nothing in ſounds to the ear either natural or ſymbolical, more than in motion and figures to the eye. And if any ſhould ſay, that it is not ſo eaſy to read tranſient motions of the lips, even ſuppoſing them ſufficiently diſtinct, which muſt alwaies be ſuppoſed, as permanent characters; to this firſt, I oppoſe reading from poynting to a finger alphabet, which is nothing but motion. 2. All reading from whatſoever immovable object, is as properly motion as hearing; for if there be no motion in the object, then it muſt be in the organ of the eye; which alters not our caſe, more than the Earth's motion or reſt alters the phænomena of Aſtronomy.

If here it ſhould be urged, that granting ſigns to the eye to be as fit for teaching as ſigns to the ear; and, therefore, that a deaf perſon muſt be ſuppoſed to be in as great a capacity of learning to underſtand a language ſpoken, as a blind, when the diſtinctions to the eye and ear are the ſame; yet, that the blind man learns to underſtand a language from hearing others ſpeak, when the deaf man learns not to underſtand from ſeeing others ſpeak, is from the advantages the ear hath above the eye.

To this I anſwer—that all the advantages the ear hath over the eye, will be conſiſtent enough with the deaf man's capacity of learning to underſtand a language from ſpeaking. It is true here, that the eye is ſtill at the loſs of equal opportunities of time with the ear; but the other advantage I gave the ear over the eye, of doing more work in leſs time, is here quite taken away; and yet the deaf man will ſtill have as much opportunity of time, if there were no other defect, if his nurſe and all that are about him be not dumb, as ſufficiently to inculcate the common notions of language: for tho young people learn a language by hearing others ſpeak, yet the greateſt part of what they hear is redundant, and, like rain falling into a full conduit, runs over. So that a deaf man, tho he have not ſo much opportunity of learning as a blind, yet has he opportunities enough, and to ſpare, for learning the common notions of language.

Now for the *minor*, ſo far as concerns the deaf man, it is known by ſad experience, that he learns no language from his mother or nurſe. And for the dumb perſon, tho I can bring no inſtance, yet the caſe ſeems to me ſo clear, that I think nobody doubts of it, and therefore I will not enlarge to prove it.

But tho the deaf man be not able to perceive all the diſtinctions of letters, neither indeed is it poſſible for him, the various motions by which ſome of them are differenced not appearing outwardly, yet if he be ingenious, I judge that he perceives a great many; and, therefore, I doubt not but deaf perſons underſtand many things, even without teaching, further than what they have from their nurſe. Tho here I muſt add, that they could underſtand but very little from the motion of the lips, which, when moſt diſtinct, muſt be full of ambiguity and æquivocalneſs to them, without other circumſtances concurring. For when dumb people make it appear, that they underſtand many things that paſs in diſcourſe where they are preſent, children and fools cannot be perſwaded but they hear; ſuperſtitious and ignorant people think they have a familiar ſpirit; others, deſpiſing the folly of the one, and impiety of the other, do judge that they are able by the eye, as diſtinctly to receive words from the ſpeaker's mouth, as others by the ear. But the truth is, what they underſtand is from a concurrence of circumſtances, many of which are often as material as the motion of the ſpeaker's lips; ſuch as, his eyes, countenance, time, place, perſons, &c.

To determine what or how many diſtinctions of letters the eye is able to diſcover in the ſpeaker's face, there can be no man ſo fit to reſolve this doubt as the deaf man. And if there be no miſtake in that well known paſſage of Sir Kenelm Digby, a Spaniſh deaf Lord hath already reſolved it ſo as to refute and deſtroy all that I have ſaid. What is there ſaid of him will amount to this—That the eye can perceive all the diſtinctions of letters, in the ſpeaker's face, which the ear can do in his voice. I let paſs that which increaſeth the wonder, that this Spaniſh Lord ſhould be able not only to know ſtrange letters, in ſtrange languages, inſtantly, but alſo to be able to imitate them, tho he had never been taught.

To neglect the teſtimony of a perſon both of honor and learning, who was an ear and eye-witneſs of all he relates, and had nothing to byaſs him from what he judged to be exact truth, and, which is more, calling to witneſs to that relation a perſon much greater than himſelf, and beyond all exception for veracity, this would not only be diſingenuous, but alſo arrogant. Therefore I will ſay what ſeems moſt probable to me for recon-

ciling that relation to the truth. I will then firſt ſuppoſe, that Sir Kenelm Digby had not much conſidered this weakneſs of human nature, nor of the way to remedy it, and therefore might be the more credulous, for I find nothing of ſuſpition or caution that he might not be impoſed upon, and ready, as we are all in ſtrange things, to magnify this rare and wonderful art, which, 'tis like, he had never ſeen nor heard of before, and perhaps had even judged ſuch performances impoſſible. Secondly, I will ſuppoſe that the prieſt, the Lord's tutor, was ambitious to ſet off his art with all the advantages poſſible, before ſo great a perſonage as the heir of the Crown of England.

Theſe things being ſuppoſed, I take it for granted, that the prieſt has uſed artifices of leger-de-main in theſe paſſages that ſeem moſt ſtrange. What theſe have been, ſuppoſing the matter of fact to be true, tho was I not there an eye-witneſs, yet, without conjuring, I can tell as certainly as if I had been a ſpectator, or an actor in that ſcene. 1. His keeping up diſcourſe with others has been done in ſet forms, to acting of which he has been trained up before hand. 2. For returning any words that came from the mouth of another, this he has been prompted to by his tutor, or any other ſtanding by, with a finger alphabet. 3. As for his echoing back Iriſh and Welſh words, two things may be ſaid. Firſt, That he might have been taught to ſound theſe guttural letters which occur often in theſe languages, and were as eaſy to him as any other letters whatſoever; or, ſecondly, becauſe it is there ſaid that the prieſt affirmed that he performed ſome things which were beyond the rules of his art, I know nothing can be ſaid, but that he might perhaps chance upon the true ſound of theſe letters, or ſomething near them, which the relator thought good to repreſent, with all his other performances, becauſe indeed wonderful to thoſe that never had ſeen, or heard of the like, or knew by what art they were performed, to the greateſt advantage. As for his returning words whiſpered at the diſtance of the breadth of a large room, there is no new wonder in this; for whiſpering and ſpeaking loud were all one to him: but I ſuſpect that this, as well as other things, has been a ſet leſſon, or the prieſt did *micare digitis*.

I am not ignorant, that many of Sir Kenelm's relations are looked upon

as fabulous and hyperbolical. Well, be it ſo, and let this be as fabulous as any of them. It is not the *esse*, but the *posse* of the ſtory, that I concern my ſelf to maintain. That ſeveral paſſages related there are impoſſible, and other circumſtances very hyperbolical in that ſenſe in which he underſtands them, I think I have ſufficiently proved; and yet, that the whole relation might be true in that ſenſe I have put upon it, I hope I have made no leſs evident.

CHAP. V.

OF THE MOST EFFECTUAL WAY TO FILL A DEAF MAN'S CAPACITY.

HITHERTO I have been taking meaſures of the deaf man's capacity. I come now to conſider of the way to fill it. And here my deſign is not to give a methodical ſyſteme of grammatical rules, but only ſuch general directions whereby an induſtrious tutor may bring his deaf pupil to the vulgar uſe and ὅτι of a language, that ſo he may be the more capable of receiving inſtruction in the διὸ ὅτι from the rules of grammar, when his judgment is ripe for that ſtudy. Or more plainly, I intend to bring the way of teaching a deaf man to read and write, as near as poſſible to that of teaching young ones to ſpeak and underſtand their mother-tongue.

I will begin with a ſecret, containing the whole myſtery of the art of inſtructing deaf perſons; that is, I will deſcribe ſuch a powerful engine, as may be able to fill his head as full of the imagery of the world of words of man's making, as it is of the things of this viſible world created by Almighty God; which engine ſhall have one property more, that it ſhall not fail of ſucceſs, even ſuppoſing both maſter and ſcholar to be the next degree to dunces.

Here, methinks, I ſee the reader ſmiling at this *fortunam Priami*, and hear him whiſpering to himſelf *parturiunt montes, &c.* But I hope, before I have done with my notion, to reconcile him ſo far to it, as to bring him

to judge that there is ſomething conſiderable in it; and tho at firſt he meet not with all that this *hiatus* may ſeem to have promiſed, yet at laſt he may meet with ſomething more than he expected. This powerful and ſucceſsful engine is not the tongue of the learned, but the hand of the diligent. The hand of a diligent tutor will not fail to make a rich ſcholar, if *copia verborum* may deſerve the name of riches. Diligence will be that ſame virtue in our deaf ſcholar's tutor, that Demoſthenes makes action to be in his eloquent Orator. Let the deaf child then have for his nurſes, not the nine muſes, but the nine magpyes; let him be ſent to ſchool, not to πολύμητις Ὀδυσσεὺς, but to ἀμετροεπὴς Θερσίτης.

Diligence, you will ſay, is powerful in all arts. True it is, yet as a handmaid; but here I think, that without a *catachresis*, I may call it the principal point of art. This, with very few directions from art, will do the work effectually; all the fine tricks of art, which the wit of man can contrive, will be ineffectual without this. The only point of art here is, how to make an application to your deaf ſcholar, by the ſame diſtinction of letters and words to his eye, which appear to the ears of others from words ſpoken; that is, to know his letters and to write them readily; diligence will do the reſt. For example; let the ſame words be ſeen and written as often by the deaf man, as they have been heard and ſpoken by the blind; if their faculties of memory and underſtanding be equal, the meaſure of knowledge alſo will be equal. But here it will be neceſſary that I explain what I mean by diligence.

By diligence I underſtand two things; 1. That which is properly ſo called, both in the maſter and ſcholar. This Sir Kenelm Digby calls much patience and conſtancy, in the experiment upon the Spaniſh Lord. 2. Many other adventitious helps. I ſummed up the advantages the ear hath above the eye into theſe two; 1. Having more opportunities of time; 2. Doing more work in leſs time. Here I will ſhew how diligence, with a few directions from art, may in a good meaſure remedy this inequality.

It is a received maxim amongſt thoſe who have employed their thoughts in that ſucceſleſs enquiry about a perpetual motion—Reconcile time and ſtrength, and this will produce a perpetual motion. The application is eaſy from what I have ſaid before, comparing the deaf man with the blind.

Let them have equal time and force of acting, and their proficiency will be equal. That care and diligence both in the general and the particulars following, may remedy this inequality in a great meaſure, I think no body will doubt. Neither ought this to be any diſcouragement, that the reconciling time and ſtrength, as to a geometrical equality, is not poſſible; for it is not here as in the perpetual motion: there, if you fail of a minute, or a dram, all your labour is loſt; here nothing is loſt, but juſt ſo much as you come ſhort of him you compare with. How much this is, we will ſee by the particulars following.

1. If the deaf ſcholar could be brought to ſpeak readily, this would leſſen the inequality of force by one-half; and if it were poſſible that he could read the ſpeaker's words from his face, this would make a geometrical equality of force in the eye and ear; ſo that the only inequality would be then in time, the eye being confined to light, bodily poſture, and diſtance; and out of theſe circumſtances, the deaf and dumb man were perfectly cured. But, becauſe I am diſtruſtful of this cure, for which I have given my reaſons, Chap. IV, I will confine myſelf to reading and writing, moſt properly ſo called, as both the more certain and perfect cure.

Here the firſt piece of diligence muſt be, *frequens exercitatio styli*, that is, as I underſtand it in this place, uſing the pen and fingers much. If this be ſo neceſſary for forming an orator, as Cicero teaches us in his *de Oratore*, inculcating it with *ut sæpe jam dixi*, who has the uſe of the two principal organs of eloquence entire, how much more muſt it here be neceſſary where the pen muſt be both pen and tongue. Great care, therefore, muſt be taken, to keep your ſcholar cloſe to the practice of writing; for, until he can not only write, but alſo have got a quick hand, you muſt not think to make any conſiderable progreſs with him. It is true, that it were poſſible to teach a deaf man to read without teaching him to write, as one may learn to underſtand a language ſpoken and not to ſpeak it; but this would be but half a cure, and leave your ſcholar uncapable of ſociety.

And, becauſe the conveniency of writing cannot alwaies be in a readineſs, another great help will be to have *tabulæ deletiles*, of ſtone or black wood hanging up, for expedition, in ſeveral convenient places. A third help will be to have ſome common forms written in thoſe tables, there to

continue, and to be filled up as occaſion requires, like Virgil's *Sic vos non vobis, &c.* ſuch as, *Where is? I pray, give me! Who? When? What?* &c. Theſe may ſerve not only for expedition, but by them alſo your ſcholar may be taught to vary. Pocket table-books may ſometimes be more ready than theſe. Fourthly, When neither of theſe is in a readineſs, then practice by an alphabet upon the fingers; which, by frequent practice, as it is the readieſt, ſo it may become the quickeſt way of intercourſe and communication with dumb perſons. But I ſhall have occaſion to enlarge more on this, Chap. VIII. Fifthly, Another piece of uſeful care will be, to keep him from any other way of ſigning, than by letters. Sixthly, Add to this, that his familiars about him be officious in nothing, but by the intercourſe of letters, that is, either by Grammatology, or Dactylology.

If now, laſtly, I can make it appear that diligence out-weighs wit in our preſent caſe, I hope my former flaſh will not be thought to have ended in ſmoke. And this, methinks, is eaſily underſtood from obvious and daily inſtances; do not we ſee that young ones, tho of very weak parts for underſtanding Grammar, yet come as ſoon, and ſome of them ſooner, to underſtand and ſpeak a language by uſe, without art, than thoſe of ſtronger parts. One boy has gone to ſchool ſeven years, and yet underſtands not the common accidents of Grammar; another in the half of that time, is able to expound an author, and reſolve all the grammatications that occur, to a tittle: take the ſame two at play, or in things where there is no occaſion to ſhew their learning, you will often find that the ſlow boy, for the nimbleneſs of his tongue, and *copia verborum*, may ſeem to exceed the other, as far as he doth him in art.

Hence it will ſeem to follow, that the principal point of art in teaching a ſlow ſcholar, is to uſe no other art but that of diligence; and if ſo, a ſecond inference will be, that there is none ſo fit to teach a ſlow ſcholar as a ſlow maſter; that is, one dunce to teach another. This I know will ſeem ridiculous and abſurd to many, yet I declare, that I am much of this mind in earneſt, in our preſent caſe, where Grammar is excluded. For an acute man will be impatient, and not able to ſtoop ſo much as the other. And to clear this further, I think it will be eaſily aſſented to, that a prattling nurſe is a better tutrix to her foſter-child, than the moſt profoundly learned doctor in the univerſity.

My laſt inſtance, therefore, ſhall be—Take maſter and ſcholar, qualified as before, adding diligence as I have deſcribed it, and let a liberal reward be propoſed to the maſter; if the work be not effectually done, let me be the dunce for them both.

If, therefore, this cure may ſo eaſily be performed, what a reproach is it to mankind, that ſo little compaſſion is ſhewn to this infirmity of human nature; theſe wretched impotents being not only neglected in the point of education, like brutes, but alſo, as if this were not unkindneſs enough, the laws of men do moſt inhumanly deprive them of many priviledges wherein the comfort of life conſiſts. As for former ages, I confeſs they are to be excuſed; for tho, as I have been proving, diligence be the principal point of art, yet was this a ſecret to them; but in this knowing age, in which proofs have been given both at home and abroad, that this weakneſs is cureable in a good meaſure; and, if the reaſons contained in theſe papers have any weight, cureable even to perfection, ſo far at leaſt as concerns the better part of the man; that is, theſe impotents may not only be inſtructed in the common notions of language, which is the bond of human ſociety, but alſo from this foundation may be raiſed the ſuperſtructure of all other arts, which are either for uſe or ornament to human nature: I ſay then, for us to neglect ſo worthy and noble an experiment, and ſo great an object of charity and compaſſion, were at once to degenerate from the charity of our anceſtors, and to make their ignorance preferable to our knowledge.

CHAP. VI.

OF A DEAF MAN'S DICTIONARY.

Tho a diligent inculcating of the common forms of a language, following no other rule or method but that of the nurſery, would undoubtedly bring the deaf man to underſtand and write it ſo as the vulgar underſtand and

ſpeak it; yet ſome directions from art, ſpecially if your ſcholar be ingenious, will both facilitate the work, and do it much better; that is, it will make him underſtand the nature of words better, and ſo prepare him for the ſtudy of grammar, as alſo the nature of things for which he ſees words ſubſtituted, and ſo prepare him for the purſuit of other arts. I will, therefore, give a few ſuch directions, whereby the teacher, abſtaining from rules and words of art, may be enabled to produce the proper effects of art in his ſcholar. But firſt I will reſolve two preliminary queries: 1. What language is eaſieſt to be learned? 2. And what language will be the moſt uſeful?

For the firſt, a language of a Philoſophical Inſtitution or a Real Character, would be by much the moſt eaſy; as being free from all anomaly, æquivocalneſs, redundancy, and unneceſſary grammatications; and the whole inſtitution being ſuited to the nature of things, this verbal knowledge would not only come more eaſily, but alſo bring with it much real knowledge.

Secondly, The language of greateſt uſe to be learned, will be that of the place where he lives, and of the people with whom he is to converſe. And here with us, the deaf man has ſeveral advantages above other nations. Firſt, That our Engliſh is freer from anomaly and æquivocalneſs, at leaſt in writing, which is enough for him, than many other languages. Second, It is not ſo much clogged with inflexions as other languages; and, third, our words are for the moſt part monoſyllables, and therefore more eaſy to be remembred. I come now to the promiſed directions.

I will make way for particulars by obſerving, firſt, in general, that the way of teaching here, muſt be ſomething mixt, and as it were middle between the grammatical way of the ſchool, and the more rude diſcipline of the nurſery. The firſt initiation muſt be purely grammatical; but when your ſcholar is got over this difficulty, of knowing and writing his letters readily, then imitate the way of the nurſery. Let *utile* and *jucundum*, variety and neceſſity, invite and ſpur him on, ſpecially if he be young or of a lache temper.

You muſt not be too grammatical in teaching till you find his capacity will bear it: he muſt not be dealt with as ſchool-boyes, who are often

punifhed for not learning what is above their capacity. It is enough for him to underftand the word or fentence propofed, without parfing every word and fyllable; for this is all the ufe of language that not only children but even people of age that are illiterate have; they underftand the meaning of what is fpoken, but can neither tell how many words, fyllables, or letters came from the fpeaker's mouth. So that the having the vulgar ufe of a language, and the underftanding it grammatically are very different things. And this prepofterous way of learning the learned languages, firft Grammar and then the language, is the caufe of fo flow progrefs in thofe that apply themfelves to the ftudy of them.

The firft exercife you muft put your fcholar upon, is to know his letters written or printed, and upon his fingers, and to write them himfelf; and when he comes to joyn, let his copies be of fuch words as he may be taught to underftand; fo that at once he may be learning both to write, and underftand the meaning of what he writes. When you have got him to write fair, keep him to conftant practice, that you may bring him to write a quick hand, which his condition requires.

Let him begin to learn the names of things beft known to him, how heterogeneous foever; fuch as the *elements*, *minerals*, *plants*, *animals*, *parts*, *utensils*, *garments*, *meats*, *&c.* and generally the names of all fuch corporeal fubftances, natural or artificial; not only abfolute, but relative, as *father*, *brother*, *master*, *servant;* as alfo names of offices and profeffions, as *cook*, *butler*, *page*, *groom*, *taylor*, *barber*, *&c.;* for all thefe will be as eafily apprehended as the moft diftinct fpecies of natural bodies. Let his nomenclature be written down fair, and carefully preferved, not only in a book, but on one fide of a fheet of paper, that it may be affixt over againft his eye in convenient places. And let this his dictionary be forted three waies: 1. Alphabetically; 2. Following the order of double confonants, both in the beginning and the end of a word; 3. Reducing it to feveral heads or claffes, with refpect not to the words but the things, as in Junius' *Nomenclator;* for every one of thefe methods will be of good ufe to him.

After he has got a good ftock of thefe concrete fubftantives, then proceed to adjectives; namely, fenfible qualities, quantity, with fome metaphy-

ſical notions; which all of them almoſt admit of proper contraries, which illuſtrate one another, and therefore will be of great uſe to the learner. Let him be made to underſtand adjectives by joyning them to their proper ſubjects, taken out of his vocabulary of ſubſtantives already underſtood, as *hard iron, stone, bone, &c. soft silk, wool, cloth, &c.* And ſometimes inſtance the two contraries in that ſame ſubject, as *iron hot, cold;* and thus he will make a further advance to complex notions.

Obſerve here, that by the help of an almanack and watch, it will be eaſy to make your ſcholar underſtand all the differences and words of that difficult notion of time.

After he has practiſed ſufficiently upon complex notions of ſubſtantives and adjectives, let him proceed to words of action, whether bodily or ſpiritual, which Grammarians call verbs, as *break, cut, hold, take, laugh, affirm, deny, desire, love, hate, &c.* And thus much ſhall be enough to have been ſaid of his dictionary, in this rude diſcipline under which we ſuppoſe him as yet to be.

Here I would have it well obſerved, that tho in applying myſelf to the deaf man's tutor I have followed ſomething of method, *docendi causa*, yet I do not adviſe him to take this courſe with his ſcholar; but, as I ſaid before that the names of things beſt known to him, how heterogeneous ſoever, were to be firſt learned, ſo here I ſay that there is no regard to be had to the cognation, or grammatical affinity of words. In a word, occaſion will be the beſt miſtreſs of method, till he have made a conſiderable advance; and then, when his dictionary begins to be numerous, it will be neceſſary to draw it up in rank and file. Nay further, I am ſo far from adviſing to follow any method at firſt but what is occaſional, excepting only the ſtated and fixt order of letters in the alphabet, that if your ſcholar be not very young, you may propoſe ſentences as early to him as ſingle words; eſpecially interrogatives and imperatives, as, *Where is your hat? Whose hat is this? Who gave you this apple? Rise up, sit down, give me the cup, shut the door, &c.* And theſe may be eaſily varyed, indicatively, infinitively, affirmatively, negatively, &c.

And yet for all this, I cannot deny but the teacher may, and muſt contrive ſome method for himſelf, even of thoſe things which he has taught,

following occaſion and his pupil's capacity, that he may know the better to take the meaſures of his progreſs, and to make the beſt uſe of occaſions offered.

CHAP. VII.

OF A GRAMMAR FOR DEAF PERSONS.

HAVING diſpatcht the deaf man's Dictionary, I come in the next place to ſpeak of his Grammar. I ſhould contradict the principles I have formerly laid down, if I ſhould inſiſt much upon Grammar; neither, indeed, doth our Engliſh tongue require or afford much to be ſaid by him, who would be ambitious to ſhew himſelf γραμματικώτατος. I ſhall, therefore, only make ſome few reflexions upon Etymology and Syntax, ſuppoſing Orthography to belong to Lexicography, of which already: and for Proſody, our ſcholar is no more able to receive its precepts, than a blind man is to judge of colors.

I ſhall only take notice of five etymological grammatications, and do but name them; for I judge that theſe and all other points of Grammar are to be deferred, at leaſt as to an accurate explaining of them, until he be fitted for the ſtudy of Grammar, in manner as I have ſaid before.

The firſt is the plural number, for which the rule is but one and eaſy. Add *s* to the ſingular, *pen*, *pens*, and the exceptions are not many, which here I paſs by. 2. The comparative and ſuperlative degree, almoſt as eaſy as the other. They are formed by adding the terminations *er* and *est*, or by the auxiliary words, *more*, *most*, as *hard*, *harder*, *hardest*, or *more hard*, *most hard*. The exceptions are not many. 3. The participle active or neuter in *ing*, from which I think there is no exception; and the participle paſſive, which is oftentimes the ſame with the preter-imperfect tenſe without an auxiliary word, as, *I loved;* or the preter-perfect tenſe with an auxiliary word, as, *I have loved:* but from this rule are a multitude of

exceptions, which is the greateſt irregularity in the Engliſh Tongue. 4. The adverb of the manner ends in *ly*. This alſo hath its exceptions, but not many. 5. The abſtract ending in *ness* generally.

Theſe things you need not teach your ſcholar by rule, for a little practice will enable him to make a rule for himſelf, and to bring the exceptions too under his rule; as we hear outlandiſh men and children ſaying often, *mans, womans, foots*, for *men, women, feet*.

As for that ambiguity, that almoſt every concrete ſubſtantive in Engliſh is uſed verbally, as *pen, hand, foot, &c.*, this adds much to the copiousneſs, emphaſis, and elegancy of the language, and yet gives very little cauſe of miſtake, the conſtruction of the words determining the ſignification. But the verbal ſignification of theſe words being metonymical, it will be beſt to leave them to their own place. So much for Etymology ſhall ſerve in this place: now for Syntax.

The learned languages make two general parts of Syntax, agreement and government; whereas it ſeems to me, that with them Syntax requires a diſtribution antecedent to this; to wit, that the Syntax of words is either *per se* or *per aliud, i. e.* the grammatical coherence and connexion of words is made by the terminations of the words themſelves, or by auxiliary words called particles. But neither the one nor the other of theſe diſtributions does our language require or admit of, being freed from all incumbrances of inflexions by genders and caſes, except a few pronouns, and, conſequently, from the rules of agreement and government; all our Syntax conſiſting in the cement of auxiliary particles.

To treat of Syntax then in Engliſh, is to ſhew the uſe of the particles in forming words into ſentences. For to explain theſe notions ſeparately, were to build caſtles in the air; and to form ſentences without them, were to make ropes of ſand.

Here I will not inſiſt upon explaining every ſingle particle, as if I were dealing with a dumb ſcholar; but remembring that the preſent addreſs is more to the maſter than the ſcholar, I will inſtance only in ſome few, which may ſerve for a clew to guide any ingenious adventurer thro the whole labyrinth.

As I would adviſe the dumb ſcholar to be often put to practice upon

verbs of bodily action, varying the circumſtances by the particles, ſo will I ſingle out the verb *cut*, to be the principal verb in the following examples for explaining the particles.

I begin with pronouns, which, according to the notation of the word, are words put for other words. Let, therefore, theſe things be preſent, for whoſe names the pronouns are the *provocabula;* and then it will be eaſy to make your ſcholar underſtand the uſe of theſe pronominal words. I will inſtance, firſt, in the demonſtratives, *I, thou, he, we, ye, they.* Let there be ſix perſons preſent, as many more as you will. Write down, *I cut, thou cut, he cut, we cut, ye cut, they cut.* Let the maſter take his ſcholar by him, and place a third perſon over againſt him, all of them prepared with a knife, and apple, or ſtick, &c. Let the maſter cut firſt, pointing to the words *I cut.* 2. Let the ſcholar cut, the maſter pointing to the words *thou cut.* 3. Let the third perſon cut, pointing to *he cut.* And for the plural number, let the maſter and his ſcholar ſtand firſt together, placing two more near them, and two over againſt them. Then let the maſter and ſcholar cut, pointing to *we cut;* let the two by them cut, pointing to *ye cut.* 4. Let the two over againſt them cut, pointing to *they cut.* The poſſeſſives, *mine, thine, his, ours, yours, theirs,* may be taught after the ſame manner; *my apple, thy apple, his apple, our apple, your apple, their apple, mutatis mutandis.* In ſhort, all pronominal words after the ſame manner; *all cut, none* or *nobody cut, this boy cut, that boy cut, the same boy cut, another boy cut,* &c. Let him practice much upon this and other verbs, till you find that he is able to make theſe diſtinctions of himſelf.

When he can diſtinguiſh perſons, it will be eaſy from many examples, *cuttest, cutteth, breakest, breaketh, holdest, holdeth,* to make him underſtand, that the ſecond and third perſon ſingular are diſtinguiſhed by termination from the other perſons.

For the ſigns of tenſes, *do, dost, doth, have, hast, hath, was, wast, were, shall, will,* write down, *I have cut the pen, I do cut the apple, I will cut the stick;* cut accordingly, pointing to your ſcholar; or write, *I have stood, I do stand, I will stand;* do accordingly. *I have walked, I do stand, I will sit;* do accordingly. Do not trouble your ſcholar with too nice diſtinctions of words, ſuch as *shall* and *will, did* and *have;* it is enough for him, as yet,

that he underſtand the uſe of words in the common forms of ſpeech, as illiterate perſons do.

Let him practice much upon the pronouns, and ſigns of tenſes, with verbs of action, adding other circumſtances of time, place, manner, &c. and that with all the variety poſſible, of familiar, plain, eaſy, moſt common, and moſt frequently occurring circumſtances.

The *copula* will be eaſily underſtood, becauſe of its frequent uſe, both affirmatively and negatively; *Fire is hot, water is not hot; Water is cold, fire is not cold.* So in all its inflexions; as, *I am tall, thou art short, he is thick, I am sitting, thou art standing, he is walking.*

The particles OR and AND, with the adjectives *same* and *diverse*, are to be diligently inculcated, as being words of frequent uſe, and uſeful for explication, and declaring the ſenſe of other words. *Or*, in the explicative ſenſe of it, coming between words ſignifying the ſame thing; *and*, between words ſignifying diverſe things. It may be good to write down many examples of ſynonymous words and phraſes which your ſcholar underſtands, joyning them with *or*, as

The same,	I stand, or I do stand, or I am standing.		to go, or to walk.	the same,	wide or broad,	the same.

So for the copulative *and*, give ſuch examples as theſe:

Diverse,	Hand *and* Foot.	diverse,	Pen *and* Ink.	diverse,	Sun *and* Moon.

But the frequent recurring of theſe and many ſuch like in common, familiar, and neceſſary forms of ſpeech, will ſoon make them to be underſtood.

As for particles ſignifying motion, as *to, from, thro, by, into, out of, hither, thither, hence, thence*, &c. whether prepoſitions or adverbs; ſo diſtance, as, *far off, near, at, hard by, close by*, &c.; poſition, as *before, behind, above, upon, beneath, about, up, down, beyond, on this side*, &c.: their uſe and meaning is ſo plain and obvious, that there needs no more but choice of fit examples to make them underſtood. The table is *before* your face, the chair is *behind* your back, the book is *upon* the table, my hand is *above* the table,

the noſe is *between* the eyes, the eyes are *above* the mouth, the mouth is *under* the eyes, the tongue is *in* the mouth, to put *out* the tongue, to riſe *up*, to ſit *down*, go *to* the door, *from* the door, come *hither*, go *thither*, &c. Theſe and ſuch like words, ſignifying circumſtances perceivable by ſenſe, are as eaſily apprehended as words ſignifying bodily ſubſtance or ſenſible quality.

Even the particles of a metaphyſical extraction, and more remote from ſenſe, may be eaſily underſtood, if the teacher be not too metaphyſical in his application. I will mention here only two topicks of this kind of particles; the cauſes and the comparates, which are the two principal ſinews of diſcourſe. The particles from the cauſes are diverſe, *from*, *of*, *with*, *by*, *wherefore*, *therefore*, *because*, *why*, &c. Uſe examples ſuch as theſe: This pen was made *by* the maſter *of* a gooſe-quil, *for* to write *after* my copy. Explain *why*, *wherefore*, *what is the cause*, by expoſtulations and interrogations with your ſcholar himſelf or others, and *because* in anſwer to theſe.

Obſerve here, that many of theſe particles being very equivocal, it will not be prudence to repreſent this difficulty all at once, leſt it amaze and diſcourage your ſcholar. For example, you have made him underſtand the cauſal particle *with*, in ſuch examples as theſe; to cut *with* a knife, to write *with* a pen; do not immediately put him upon the particle of ſociety *with*, as, go *with* me; but explain the various uſe of ſuch particles, as they offer themſelves occaſionally in practice, and as you find his capacity is able to receive: for, improving of occaſions and complying with the ſcholar's capacity, will be the maſter's greateſt commendation. Not but that he may be put upon learning many ſet forms for exerciſe of memory, tho he underſtand them not perfectly. But do not put his underſtanding to the rack, by an undiſcreet preſſing upon his apprehenſive faculty, notions either ſimple or complex, which you find he receives not readily. But make a collection of ſuch words, and watch opportunities of explaining them. I can give no better rule for explaining words hard to be underſtood, than that which Horace has given, in a caſe not much unlike ours.

Dixeris egregie, notum si callida verbum
Reddiderit junctura novum.

Where the principal verb of a ſentence is clearly apprehended, it brings great light to other circumſtantiating words. So that the ſkilful chuſing of verbs of action, well underſtood by your ſcholar, and the like dexterity in placing a hard word which you would have him to underſtand, amongſt other words of circumſtance already well underſtood, in conſtruction with the verb, every word of the ſentence will reflect ſome light upon this dark word.

The ſecond claſſis of metaph: or perhaps more properly logical, particles, are thoſe that owe their origine to the topick of the comparates; ſuch as, *than, much, more, most, less, least, by so much*, &c. Explain theſe alſo by many fit examples, in which the ſeveral degrees of compariſon may be demonſtrated to the ſenſes—This water is *as* hot *as* that; this cheeſe, apple, egg, is *greater* or *more* great *than* that; this apple is the *greatest* or *most great* of all the apples; *by how much* this ſtick, paper, is *longer than* that, *by so much* that is *broader than* this: let the proportion be fitted and meaſured.

It will be neceſſary to make a collection of ſuch forms of ſentences as he underſtands, one or two examples of every form, that upon occaſion he may have recourſe to them as to rules and precedents in the like caſes; and, amongſt other forms, forget not imperatives and interrogatives, for which he will have early and frequent uſe. Gather up all the forms of interrogation, *when? who? what? where? whose? whence? whither? how long? many? great?* &c. Form ſentences upon every one of theſe interrogations in things familiar, and ſubjoyn proper anſwers; as, *Whose book is this?* A. *Mine, thine, his, thy brother's, the master's*, &c. *When shall we go to bed?* A. *By and by, at ten o'clock, an hour hence*, &c. Imperative forms; *I pray give me the book, take up the pen, lay down the paper, sit down, rise up, put on your hat, open the door, shut the door*, &c.

For exerciſe you may find great variety for him; ſuch as, to vary the circumſtances propoſed, to deſcribe things from their cauſes, from their contraries, by comparing them with other things, to form a narration of things ſeen, to write epiſtles. Let him be put much upon the exerciſe of memory, and that not only in looſe words and incoherent ſentences, but let him beſtow much time and pains in learning by heart, in the firſt place, for his *lectiones sacræ* upon the Lord's Day and Holy-dayes, the Lord's Praier, the Creed and Ten Commandements, with the Church-Catechiſm.

The ſolemnity and frequency of Divine Service would have good effects upon him, being placed conveniently oppoſite to the miniſter, with a book before him, and one to direct him, till cuſtome enable him to direct himſelf. This would not only excite him to piety and devotion, but in progreſs of time, he would come both to underſtand, and have by heart the greateſt part of Divine Service. Some other ſelect paſſages of Scripture might be recommended to him, as the Firſt Chapter of Geneſis, the Hiſtory of our Saviour's Nativity and Sufferings. The moſt proper books among profane authors for him to practice on, I think, of many, were Æſop's Fables, and ſome playes where there is much of action.

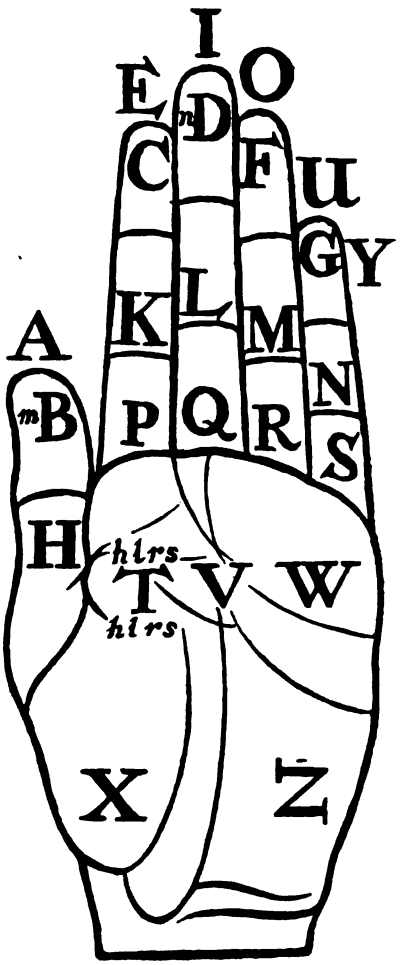
In the application of all I have ſaid, reſpect is to be had to the quality of the perſon to be taught; whether young or old, dull or docile: how to comply with theſe circumſtances, muſt depend upon the prudence of the teacher. When his progreſs is ſo conſiderable that it may be ſaid of him, he underſtands the Engliſh Tongue tolerably well, he may then be put upon the ſtudy of Grammar, which will be the more eaſy to him, becauſe the courſe of ſtudy he was in before had a mixture of Grammar in it, as I have ſaid. Afterwards, or before if you pleaſe, he may be taught Arithmetick and ſomething of Geometry.

CHAP. VIII.

OF AN ALPHABET UPON THE FINGERS.

Because the conveniency of writing cannot alwaies be in readineſs, neither yet tho it could, is it ſo proper a medium of interpretation between perſons preſent face to face, as a hand-language. It will, therefore, be neceſſary to teach the dumb ſcholar a finger-alphabet; and this not only of ſingle letters, but alſo for the greater expedition, of double and triple conſonants, with which our Engliſh doth abound.

After much ſearch and many changes, I have at laſt fixt upon a finger or hand-alphabet according to my mind; for I think it cannot be conſiderably mended, either by myſelf or any other, without making tinker's work, for the purpoſes for which I have intended it; that is, a diſtinct placing of, and eaſy pointing to the ſingle letters, with the like diſtinct and eaſy abbreviation of double and triple conſonants.



I deny not but there may be many more abbreviations than I have provided for, namely, of initial ſyllables and terminations; but theſe I

have paſt by at preſent, for two reaſons. Firſt, I think there will be little need of them, for I doubt not but that with the proviſion I have made, an habit equal to that in thoſe who write a quick hand, may very near make the hand as ready an interpreter as the tongue. Secondly, If they ſhould be judged needful, I have taken care that with a few rules they may be added, without altering any thing of the inſtitution of this preſent ſcheme.

The ſcheme, I think, is ſo diſtinct and plain in itſelf, that it needs not much explication, at leaſt for the ſingle letters, which are as diſtinct by their places, as the middle and two extremes of a right line can make them. The rules of practice are two. 1. Touch the places of the vowels with a croſs touch with any finger of the right hand. 2. Poynt to the conſonants with the thumb of the right hand. This is all that I think to be needful for explaining the ſcheme ſo far as concerns the ſingle letters, and for the double conſonants, I have made proviſion for abbreviating a threefold combination of them. I ſhall here only give the rules of abbreviation of the ſeveral combinations I have made choice of, referring the reader for the reaſons of my choice, to the following Treatiſe of double conſonants.

The firſt combination of double conſonants I make proviſion for, is when *h*, *l*, *r*, *s*, come in one ſyllable with other conſonants; and that two waies, either before or after another conſonant, as in theſe examples.

1. H. { light, the. 2. L. { salt, title. 3. R. { heart, trie. 4. S. { hast, hats.

1. When theſe four letters are prefixt to other conſonants, as in *light*, *salt*, *heart*, *hast*, the rule is—Point ſkin to ſkin with the four fingers of the other hand reſpectively to the capital letter, which in the preſent example is T, to which they are prefixt; which by inſtitution deſigns the double conſonants *ht*, *lt*, *rt*, *st*. 2. When the ſame four letters follow another conſonant, as in *the*, *title*, *trie*, *hats*, then point, as before, to T with nail to ſkin, which gives *th*, *tl*, *tr*, *ts*.

A ſecond combination of double conſonants, worthy of this care of abbreviation becauſe of their frequent uſe in Engliſh, is when the liquids *m*, *n*, come before the mutes and ſemimutes, *b*, *p*, *d*, *t*, *g*, *k*, or *c*; that is,

m before *b*, *p*, and *n* before *d*, *t*, *g*, *k*, *c*. The rule is—Touch the place of theſe mutes and ſemimutes with the firſt and ſecond finger joyned; and this by inſtitution gives the liquid and the reſpective mute or ſemimute following, as in *lamb*, *lamp*, *hand*, *hunt*, *anger*, *ink*, *France*.

The third abbreviation is of trible conſonants in the beginning of a word or ſyllable, where *s* is alwaies the firſt; as in *schism*, *skrew*, *shrine*, *spread*, *strong*, *scrag*, *sphinx*, *sosthenes*, *splinter*, *justle*, &c. The rule is—Joyn the thumb to the finger pointing to the other two conſonants. And ſo much for abbreviation of double and trible conſonants.

But obſerve here, that as ſchool-boyes are to learn *amavisse* before *amasse*, and ποιέω before ποιῶ, and to write words at length before they learn ſhort-hand, ſo let your dumb ſcholar, and others that would practice Dactylology, firſt know and practice upon the ſingle letters, before they come to practice upon the rules of abbreviation.

Now, tho this way of ſhort-hand, or abbreviation of words, be diſtinct, eaſy, quick, and comprehenſive, yet is there another way of practiſing, which comes nothing ſhort of this in other reſpects, and in one reſpect ſeems to be preferable, that it ſuppoſes nothing neceſſary to be known for practiſing but the places of the ſingle letters, without making new rules for diſtinguiſhing double and trible conſonants from the ſingle. The rule is—Point to all the ſingle letters of the double or trible conſonant, *simul et semel*, which will be found to be as eaſy as poynting by the former inſtitution with one ſingle touch, as will appear in theſe examples; *when*, *which*, *the*, *light*, *blunt*, *brand*, *grunt*, *plaster*, *spread*, *strong*, &c.

If here it ſhould be objected, that this will breed confuſion, leaving the reader doubtful what letter to begin with, to this I anſwer: 1. For double conſonants in the beginning of a ſyllable, this objection can never be of any force; for there is no Engliſh word found wherein their order is inverted, as will appear from the following Treatiſe of double conſonants. 2. For double conſonants in the end of a word, ſo far as concerns the ſecond combination formerly mentioned, there can never be any miſtake; for ſcarce, I think, is there any example occurs wherein their order is inverted, or if there did, then the rule will be in that caſe—Point to the ſingle letters diſtinctly. So that the objection is of no force, except

only againſt the firſt combination of double conſonants, and that only in the end of a ſyllable; for there are ſome, but not many examples, where the order is inverted, as, *salt*, *title*, *hast*, *hats*. But to this it may be anſwered, that in a continued ſentence the ſenſe will eaſily determine the caſe, and take away all ambiguity; as, Here lies one *hat*, there lie two *hats*. But if you have occaſion to diſtinguiſh the word *hats* from *hast*, then you muſt point to all the letters diſtinctly.

And this compendious and expeditious way of Cheirology may be extended further than this abbreviation of double and triple conſonants; for they that are maſters of a language, and have got a conſiderable readineſs of practiſing, by diſtinct touches of ſingle letters, will find it as eaſy as it is uſeful, to expreſs whole ſyllables and whole words that are monoſyllables, ſpecially in words of common uſe, with one multiplyed touch, *simul* and *semel*. My meaning by this multiplyed touch *simul* and *semel*, is not to touch diſtinctly all the letters of a ſyllable or word, by the index or any one ſingle finger of the other hand ſucceſſively, making ſo many diſtinct motions from place to place, as there are letters in the ſyllable, but ſo to order the matter, that an equal number of the fingers of the other hand may be uſed for a ſimultaneous touch to make the word or ſyllable, according to the number of letters it ſhall happen to conſiſt of. This way of expreſſing ſyllables, and words monoſyllables, with one multiplied touch, after a little practice, will be as eaſy and quick as pointing to one ſingle letter with a ſingle touch; it will be alſo as diſtinct as pointing to every letter ſucceſſively with one finger.

But let it be well obſerved here, that tho I would have a whole ſyllable expreſſed with one ſingle action and motion of the whole hand, yet let not the diſtinct touches be ſo ſimultaneous, but that it may appear where the word begins and where it ends.

Here I think will be a proper place to give a rule how to know when a word is ended, and it is this. Let there be a continued actual touch of more fingers, or one at leaſt, till the word be ended; or if this happen, as it may in ſome words, to be uneaſy, then make a quick motion from the place of the laſt letter of the word. But this difficulty, after a little practice, will vaniſh away.

Now, becauſe this diſcourſe may fall into the hands of ſome that have trifling heads like my own, to whom it will be acceptable to know what other waies of Dactylology I have had under conſideration, I will, for ſatisfying their curioſity and perhaps ſaving them the expence of vain labour, mention ſome other waies which I have conſidered, and after examination rejected.

The firſt way is to make the figures of the letters upon the hand, which differs only from writing in this, that the one is tranſient and the other permanent. It is true, that this is more ready upon all occaſions than writing; but neither diſtinct nor quick enough to be taken notice of here.

A ſecond way is the forming of the letters ſymbolically; as, to make an X by croſſing two fingers, a croſs touch upon the end of the thumb for a T, three fingers joyned for M, two fingers joyned for N, &c. This ſymbolical way I reject, as being defective in two reſpects; firſt, it is defective in the point of ſymbolizing, for it will not be eaſy with the fingers to repreſent the ſhapes of all letters. This way of expreſſing the letters ſymbolically, is ſomewhat like the conceit of a ſymbolical character, and a language of nature, which ſome have talked much of, but without any foundation in nature, and therefore all attempts of art muſt be in vain. But ſecondly, this way is too laborious, and ſo defective in anſwering one of the principal ends for which Cheirology is deſirable, and deſerves the name of an art; that is, a quick and ready expreſſion and interpretation of the conceits of the mind, coming as near as poſſible to that of the tongue.

The third way is to deſign every ſingle letter by a ſingle touch, which I judge much the better way than either of the other two, as being more ſimple, diſtinct, eaſy, and of quick diſpatch. Having, therefore, reſolved upon this, that the moſt proper way to expreſs the ſimple elements of the alphabet would be by a ſingle touch, it remained that they ſhould be diſtinguiſhed amongſt themſelves by their places. And here again, after conſideration and tryal, I have rejected ſeveral waies of diſtinguiſhing the letters by places. Firſt, I provided places on both hands, back and fore, but finding this laborious and intricate, and perceiving that there might be diſtinction enough found in one hand, I placed the whole alphabet upon

one hand; yet ſo as to make uſe of an equal number of places on both ſides of the hand. But at laſt finding that all the neceſſary diſtinctions could be provided for on one ſide of the hand, I fixt upon the inſtitution of the preſent ſcheme; which, I think is done with that conſideration and care that, as I ſaid before, it cannot be much improved.

Here I thought to have kept one ſecret of art to myſelf, at leaſt till I ſhould ſee how other things I had diſcovered ſhould pleaſe; but I muſt confeſs my own weakneſs, that in things of this nature I am *plenus rimarum*. I know not how conſiderable this ſecret will ſeem to others, but I declare, that I may confeſs another weakneſs, that I was much affected with it; for, after a long and tyreſome chaſe, and having purſued my notion, as I thought, to a *nil ultra*, when I was ſet down and pleaſing myſelf with my purchaſe, on a ſudden I fancied myſelf to ſee an one-handed deaf man coming to me, and as much as I could read in his eyes and countenance, expoſtulating with me thus: What have you done? Is there no help for me? Shall one eye ſerve in Schematology, and one ear in Pneumatology; one tongue in Gloſſology, yea one hand in Typology; and ſhall not one hand ſerve in Dactylology? With this fixing my eyes ſtedfaſtly on his hand ſtretched out, I thought with myſelf that I could diſcern a mouth and a tongue in his hand; the thumb ſeemed to repreſent the tongue, the fingers and the hollow of the hand the lips, teeth, and cavity of the mouth. Upon this I made ſigns to him to try to follow me, as I pointed to the letters on my own hand, which he did ſo exactly that the ſurpriſe put me in amaze for ſome time. But when I had overcome my paſſion, reflecting upon this wonder both of nature and art, I obſerved that of the twenty-four letters, he pointed to ſixteen with his thumb. Thus I diſmiſſed my deaf and lame patient, bidding him be of good courage, and live in hopes of an effectual and ſpeedy cure.

But after he was gone, I began to conſider with myſelf: What! ſhall I magnify this as a myſtery and wonder of nature and art, to find a way to metamorphoſe a chimæra into a man, or to make a black ſwan white? This will be *magno conatu magnas nugas agere*. As I was thus thinking, it happened that I was ſmoking a pype of tobacco, and having a preſent occaſion to diſpatch a ſpeedy meſſage, I was unwilling to let my pype go

out, and ſo at that preſent was deprived both of the uſe of my tongue and one hand; wherefore reflecting upon the leſſon which I had lately taught the one-handed deaf man, or ſhall I rather ſay, which he taught me, I call a boy to me, whom I had trained up in Dactylology, and delivered my meſſage to him with one hand. He, ſtaring in my face with a ſmiling countenance, for I had never ſpoken to him before that time with one hand, performed the meſſage very readily, and returned me a ſpeedy anſwer, uſing the ſame organ of interpretation, for I ſurpriſed him eating an apple, to me which I had done to him. This gave me occaſion to think that this point of art had not only one-handed deaf men for its object, but that there might be many other caſes wherein it might be uſeful to ſpeak with one hand; as to ſpeak to a dumb man riding on horſeback, holding the reins with one hand, and with the other aſking him, How do you do? or ſitting at table, holding the cup with one hand and with the other ſaying, Sir, my ſervice to you; or, with one hand holding the knife and with the other aſking, What will you be pleaſed to have? &c.

And if any man could be ſuppoſed to have that readineſs and preſence of mind which is ſaid to have been in Julius Cæſar, he might at once keep up diſcourſe with three ſeveral perſons upon ſeveral ſubjects, talking to two with his two hands, and to a third with his tongue. And here, by the by, it is obſervable, that without any diſtraction of mind one may ſpeak both to a deaf and blind man at once, expreſſing the ſame words by the tongue to the blind man, and by the hand to the deaf.

Nay, further, I declare that as much as I have as yet been able to diſcover by practice, I judge the way of ſpeaking with one hand preferable to the other of uſing both, and that in all reſpects unleſs it be in this one, that it is not capable of diſtinction enough for all the neceſſary abbreviations of double conſonants, which perhaps, after a readineſs and habit acquired, may not be needful; or if it were, yet I know that one hand is capable of many more diſtinctions than I have as yet made uſe of; but at preſent I think it not *tanti* to make uſe of them, for I foreſee, that the conveniency will ſcarce ballance the inconveniencies.

Now, tho the practiſing of this hand-language be ſo plain and eaſy from the following ſcheme, and the preceding explication of it,* that any one

who can but read, without knowing to write, may become his own teacher; yet, ſeeing the nature of all ſkill and cunning deſerving the name of an art, is ſuch that ſomething of inſtruction *viva voce* is, if not neceſſary, at leaſt uſeful, ſo here, ſomething of direction from one well ſkilled in the practice of this art, either *viva voce*, or, which is the ſame thing and as emphatick a way of teaching if it were practiced, *digito demonstrante*, will be of good uſe to young practitioners.

I will add one help more for enabling young beginners to practice more eaſily and readily; let a pair of gloves be made, one for the maſter and another for the ſcholar, with the letters written upon them in ſuch order as appears in the foregoing ſcheme. To practice with theſe, will be eaſy for any that do but know their letters and can ſpell; and a ſhort time will ſo fix the places of the letters in the memory, that the gloves may be thrown away as uſeleſs.

Having laid open the whole progreſs of my thoughts in this diſcovery of Cheirology, it remains that I make good my promiſe in the title-page, of ſhewing that it is uſeful both in caſes of neceſſity and conveniency.

Firſt, then, I think none will deny but that it is neceſſary for perſons deaf or dumb; and therefore I ſhall ſpare myſelf the labour of proving it any other way, than by referring the reader to the ſeries and ſcope of this whole diſcourſe. But here it will be very proper to add ſomething how it may be made moſt uſeful to the deaf man, and in order to this let it be conſidered: That the nature of Cheirology is ſuch, that it is only uſeful in ſociety and converſe with others; ſo that, if the deaf man be trained up in this art, and have nobody about him ſkilled in it but himſelf, it is of no uſe to him at all; as, on the contrary, if all people were as ready in this hand-language as he may rationally be ſuppoſed to be, then the hand between him and others, would be of the ſame uſe that the tongue is to other people amongſt themſelves. But ſeeing, according to the received way of training up youth hitherto, by which no care is taken of teaching them Cheirology, he can have none, or very few to converſe with him in this way, it will be the concern of the deaf perſon's friends, beſide the influencing all his familiars to acquaint themſelves with this art for his cauſe, to chuſe ſome fit perſon to be a conſtant companion to him, and to be his

interpreter upon all occaſions amongſt ſtrangers. And, which is yet a more weighty concern, it would be their wiſdom to project a match for the deaf perſon, man or woman, betimes, that the perſon they are to match with may be trained up in Cheirology, which would add very much to the comfort of their life; they being thereby able to expreſs and communicate their ſentiments intelligibly, not only by Dactylology in the light, but alſo by Haptology in the dark.

In the ſecond place, I am obliged to ſhew the general uſefulneſs and conveniency of this art to all mankind. The particular caſes wherein it may be convenient, are many more than can be expected that I ſhould inſtance in; I ſhall therefore mention only three generals; 1. Silence; 2. Secrecy; 3. Pleaſure. In caſes of neceſſary ſilence, it may be uſeful to inferiors in the preſence of great perſons, to thoſe that are about ſick people, as near relations, nurſes, &c. So for ſecrecy, if people be in company, but not ſo near as to whiſper one another in the ear, it performs the office of whiſpering, it delivers and receives ſecret meſſages, &c. And, laſtly, for pleaſure; it may be an ingenious and uſeful divertiſement and paſs-time for young people.

Here it may be objected, that all the conveniency will not ballance the pains that muſt be taken in learning this art. This objection puts me in mind of another, and that a very conſiderable conveniency, and therefore I anſwer—The pains that is taken about learning a hand-language, if it were learned in due time, that is in childhood, would be ſo far from hindring, that it would contribute much to the child's progreſs in learning to read, if he were taught both to know his letters, and to ſpell upon his fingers. This would pleaſe the child's fancy, and imprint the letters the ſooner upon his memory, having his book alwaies open before his eyes. So that I look upon this as the greateſt conveniency of Cheirology, that it would be of ſo great uſe, and learned with ſo little pains.

And this conſideration put me upon thinking of a more adviſeable way of training up young ones, than any yet practiſed; that is, to begin children to know their letters upon an hand-book inſtead of an horn-book, or at leaſt to have a hand-book upon the backſide of their horn-book; for I make no doubt, but before they could come to know the names and figures

of the letters, they would know their places upon the hand, and be able to point to them with the other, or the ſame hand, as readily as to pronounce them with the tongue.

And who will not acknowledge that it were a thing deſirable, and deſervedly to be eſteemed as a piece of liberal education, to be able to ſpeak as readily with the hand as with the tongue? And, therefore, who would not think it worth the while to train up young children, from their A B C, in Gloſſology and Cheirology, *pari passu?* Specially ſeeing the one is no hinderance but a conſiderable help to the other, for I may truly ſay in the poet's words,

Alterius nam
Altera poscit opem res, et conjurat amice.

I thought, for the uſe of children, to have given ſome directions for facilitating the elementary diſcipline of knowing the letters, ſpelling, and reading, whereby not only the old way might be made much ſmoother, but alſo by one and the ſame labour, a conſiderable acceſſion of uſeful knowledge might be attained by the young ſcholar, that is, together with reading in books reading on the hand; and, as a neceſſary appendage of this, writing upon or ſpeaking with, call it which you will, the hand; whereas, writing with the hand, according to the common uſe of the word, is by itſelf a diſtinct and laborious art. But I fear leſt ſome may think that I have already ſtuft this diſcourſe too much with trifles, and pedantry.

A DISCOURSE

OF THE NATURE AND NUMBER

OF DOUBLE CONSONANTS.

MUCH hath been ſaid by many learned men, to deſcribe the nature and cauſes of ſimple ſounds, which are the firſt elements of ſpeech; as alſo of diphthongs and triphthongs, if any ſuch be; coaleſcing of two or three vowels into one ſyllable; but of the coalition of two or more conſonants into one ſyllable, little or nothing, for what I know, hath been ſaid by any. And yet this compoſition of conſonants deſerves as much to be explained, or rather more than the other of vowels, becauſe of its greater variety and uſe, eſpecially by him who would treat of a Philoſophical Language, or a Grammar for deaf perſons; ſo that my firſt Treatiſe of *Ars Signorum* or Sematology, with this ſecond of *Didascalocophus*, which is a legitimate offspring of that, obliged me to this enquiry.

If the queſtion ſhould be put; whether, in framing of words, it were a more rational inſtitution, that a ſingle conſonant and a ſingle vowel ſhould alwaies ſucceed one another alternately, or that there ſhould be a mixture of ſyllables allowed, made partly of diphthongs partly of double conſonants?

My own judgment in the caſe is: That both nature and art would make their firſt choice of an alternate ſucceſſion of ſingle vowels and conſonants, and that their next choice would be, of ſuch compounded vocal ſounds as are commonly called diphthongs, and deſcribed by Grammarians, and ſuch compounded cloſe ſounds as are moſt natural and of an eaſy pronounciation; for deſcribing of which this diſcourſe is intended.

But that ſuch a language could derive its origine from blinded nature, and not from art, or a Divine inſtitution, is no waies probable; for I conceive that there is now no language upon the face of the earth in common uſe, but admits of a mixt compoſition of diphthongs and double conſonants. And the more rude and uncivilized the people are, the more frequent this compoſition is with them, and the ſounds the more harſh and unpleaſant. That roughneſs of ſpeech wears out with roughneſs of manners, and ſmoothneſs of the one is a natural conſequence of the ſmoothneſs of the other, the Engliſh Language and Nation is a ſufficient proof. And if this be granted, it is argument enough to prove, that nature without art, or ſome more powerful aſſiſtance, would never bring forth a language in which there ſhould be no diphthongs or double conſonants; nature, I ſay, as it is now in its degenerate eſtate: how ſhe would have decided this queſtion in her primitive integrity and perfection, or rather how ſhe did actually decide it, as we are aſſured from God's Word ſhe did, cannot be otherwaies known to us than by ſome probable conjectures.

It is generally thought by the learned, that Adam was the author, both by invention and practice, of the Hebrew Tongue, not as we have it now in any of its dialects; yet if be granted, that the Hebrew had for its mother that language which Adam did invent and ſpeak, we may with good reaſon conclude that, corrupted as it is, it ſtill retains the ſubſtance and genius of its mother; there being ſome indelible characters upon all languages which common accidents cannot deface. For tho the tract of time from Adam to Moſes, was longer than that from Auguſtus or Alexander the Great to this preſent age, yet the common accidents which are known to change a language could not be ſo many and effectual for changing the firſt language to that which is now called Hebrew, as they have been known to be for changing the pure Greek into that which now is

uſed by a remnant of the Grecians, and called Modern Greek; or for changing the pure Latin extant in Claſſick authors, into that which is now called Italian; which languages, notwithſtanding, keep ſtill ſo manifeſt ſignatures of their origine, that it is eaſy to diſcern what ſtem they are branches of.

Now, amongſt ſeveral other defaced reliques of that firſt and Divine language, remaining not only in the Hebrew but alſo to be found in many other of the Eaſtern languages, this ſeems to be very conſiderable, that the Hebrew admits of no compoſition either of vowels or conſonants in that ſame ſyllable; but all their radical words conſiſt generally of a ſingle conſonant and a ſingle vowel, ſucceeding one another alternately, which cannot well be ſuppoſed to be the effect either of degenerate reaſon or chance.

There are two things more in that ancient language which ſeem to me unaccountable, without referring them to a ſupernatural cauſe. One is, that their radical words conſiſt generally of three conſonants, and for the moſt part are diſſyllables; and theſe radical words, how different ſoever in their conſonants, yet have ſtill the ſame points, *cametz* and *pathach*, which in oral prolation make the ſame vocal ſound with א, which, as it is the firſt letter of their alphabet, and from them in all other languages, ſo is it the firſt vocal ſound in nature. And that originally all their words were diſſyllables, as ſome conjecture, is not improbable; whereas in all other languages their radicals are generally monoſyllables, and I think originally have all been ſo; yea ſo far ſo, that there are many monoſyllables found to be *compoſita* and *decompoſita*, as the learned Doctor Wallis has ingeniouſly obſerved in his Engliſh Grammar.

Another thing is, that the Hebrew does often contract a whole ſentence into one word, incorporating not only pronouns, both prefixt and ſuffixt, but alſo prepoſitions and conjunctions with the radical word. And this compendium did firſt excite me to do ſomething for improving the art of Short-hand; that drove me before I was aware upon a Real Character; that again, after a little conſideration, reſolved itſelf into an Effable language. This at laſt has carried on my thoughts to conſider of a way how a language may be attained by reading and writing, when it cannot be attained by

ſpeaking and hearing. So that this ſeries and chaine of thoughts has for its firſt link an Hebrew grammatication.

I take notice of three things more in the Hebrew, which are conſiderable upon the account of a rational inſtitution, which is not to be found in the common uſage of other languages; but not ſo myſterious as the other three which I have already mentioned. The firſt is, their ſeparating the vowels from the conſonants, both by place and character, which has ſomething natural and ſymbolical in it; for there is ſomething in the ſtructure and compoſition of the words, analogous to *Man* the author of them; the characters of the conſonants being of large dimenſions and diviſible into many parts, repreſent the groſs and material part of man, the *body;* the vowels being expreſt by indiviſible pricks or points, do anſwer to that which is more properly indiviſible, the *soul.* This, together with a more accurate diſtinction of vowels into long and ſhort, as alſo a more accurate diviſion of conſonants from their phyſical cauſes, that is, the organs of formation, tho of late uſe, according to ſome later writers, in that moſt ancient language, yet it ſhows, at leaſt, how the genius of the tongue is fitted not only to comply with ſuch an inſtitution, but alſo that from all antiquity there have been ſome *vestigia* of that primitive and Divine, or purely rational Sematology, taught by Almighty God or invented by Adam before the Fall, (unleſs any ſhould have the confidence to affirm, that this, among many other unhappy conſequences of the Fall, was one, that it did not only in part deface, but totally wipe out all former impreſſions, leaving our firſt parent as the blind heathens would have him, *mutum et turpe pecus*, that is, having his ſoul as much *tabula rasa* as ours is when we come into the world,) which have given occaſion to Grammarians of later times to bring that part of Grammar to the preſent eſtabliſhment. But, whatever be the deciſion of that grand controverſy about the antiquity of the Hebrew points, the obſervation I have made here will ſtill be conſiderable. Wherefore I paſs to a ſecond thing conſiderable, which, without all controverſy, is more ancient and of longer ſtanding than ſome would have the points to be. It is agreed upon all hands, that there are three principal and cardinal vowels, א י ו of as ancient a date as the firſt invention of letters, which, without giving offence to thoſe that are for, or

advantage to thoſe that are againſt the antiquity of points, may, *sano sensu*, be ſtyled *matres lectionis;* becauſe all other vowels are but intermediate ſounds, and as it were the *proles* or offspring of theſe three. Wherefore, without interpoſing as to the main ſtate of that ſo momentous queſtion, that which I take notice of here as conſiderable, is this, that it has been a thing done with great care and judgment, the eſtabliſhing theſe three letters for the cardinal vowels or *matres lectionis*, for they are the three moſt diſtinct vocal ſounds that are in nature; even as diſtinct as the two extremes and the middle of any thing that has dimenſions can be, all other vowels being but intermediate ſounds to, and gradually differing from them. א is a guttural ſound, and of all other vowels the moſt apert; ו is labial, and of vocal ſounds the moſt contracted; י is palatine, and equally diſtant from both. And as it is poſſible that there might be a language copious enough, allowing only the uſe of three vowels, and ſecluding double conſonants in that ſame ſyllable, provided that the radical words were diſſyllables, which ſome think to have been the inſtitution of the pure and uncorrupted Hebrew; ſo would ſuch an inſtitution be much more eaſy and diſtinct than any language in being; the intermediate ſounds to theſe three radical vowels being leſs diſtinct, and therefore oftentimes giving occaſion of miſtakes.

I have had occaſion to mention the third thing conſiderable in the preceding Treatiſe of *Didascalocophus;* to wit, their naming the ſimple elements of letters by ſignificant words, *Aleph*, *Beth*, *Gimel*, *&c.* which, without doubt, is as ancient as the uſe of letters, or at leaſt as Moſes: the truth of this the Grecians have confirmed by a very convincing, but withal a very inartificial argument, in naming the letters corruptedly after them, *Alpha*, *Beta*, *Gamma*, *&c.* as I have noted before.

Tho I have, in *Ars Signorum*, given ſuch an analyſis of ſimple ſounds, both vowels and conſonants, as ſeemed to me moſt natural and proper upon that occaſion, yet I muſt here repeat what has been ſaid there of the nature and number of ſimple conſonants, otherwiſe the rules of compoſition I am to give cannot be underſtood.

Conſonants, then, are firſt to be divided into cloſe, and ſemicloſe. 1. Cloſe, when the appulſe of the organs ſtops all paſſage of breath thro

the mouth; and they are in number nine, *m*, *b*, *p*, *n*, *d*, *t*, *ng*, Γ, K. This closure again is threefold; 1. A perfect shutting of the lips, and this produces *m*, *b*, *p*. 2. The fore part of the tongue with the palate, hence *n*, *d*, *t*. 3. The hinder part of the tongue with the palate, hence *ng*, Γ K. These nine consonants are capable of another threefold division, upon the account of a threefold accident which equally happens to the foresaid closure of the organs respectively. For, 1. If the breath and voice be *simul* and *semel* stopt with the closure of the organs, like the throwing of a stone against a rock, this produces the three mutes, *aP*, *aT*, *aK*. 2. If, after the closure of the organs, a *conatus* of breathing be continued, and the repercussion of the breath from the passage stopt, making an inward murmuring like the breaking of a wave against a rock, which is quickly spent and hush't into silence, the same closure of organs produces the three semimutes, *aB*, *aD*, *a*Γ. 3. If, upon the closure of the organs, there be a free passage of breath and voice thro the nose, like the sounding of an organ-pipe when the key is touched, this produces a third distinction of sonorous letters from the same closure, *aM*, *aN*, *aNG*, (by *ng* I mean that sound which is heard in *anger*, *hunger*, not in *danger*, *hinge*,) and these three sounds may be continued after the closure of the organs as long as one will. I have placed a vowel before these consonants, because their power appears more distinctly than when the vowel follows.

Hence I infer, that the number of close consonants is nine, neither more nor less: not more I say, because I find that some add three more, *hm*, *hn*, *hng*, calling them mutes, making only this difference between them and *m*, *n*, *ng*, that the one is uttered vocally, the other whisperingly; but if a whispering and a vocal breath make distinct letters, there will be more distinctions of letters than the authors of this opinion seem to approve; and if this be reason enough to multiply letters, I know not but soft speaking, and crying about the streets may have the same power. That certain other distinctions in the forming of these or any other letters, may be fancied by curious and musical ears, from the modes and degrees of shutting the organs, the intention and remission of the voice, the tone being more grave, acute, &c., I readily grant; but how to make more distinctions from these three closures, plain and easy to be discerned, and

worthy to be ſo far taken notice of as to be placed in the alphabet, is a thing I could never reach.

Again, I ſaid no leſs than nine, becauſe common cuſtome has made one of theſe a double conſonant, writing it with two letters, *ng*, the ſound of neither of which is to be heard in pronounciation, but a perfectly diſtinct ſimple ſound from the power of both, as in *sing*, *ring*, *long*, and from all letters whatever. And it is obſervable, that our Engliſh is very unconſtant in expreſſing the power of this letter; ſometimes by *ng* in the end of a word, as *sing*, *hang*, *long*, where nothing of the ſound either of *n* or *g* is heard; ſometimes by *n* alone before its brother conſonants, *k*, *g*; before *k* every where, as *ink*, *rank*, *drunk*; before *g* in the middle of a word, as *longer*, *hunger*, tho not alwaies ſo, for in *danger*, *stranger*, &c. *n* keeps its own power.

If any be ſo far prejudiced with the uſe of the Latin, which alwaies expreſſes the power of this letter by *n*, and other modern languages, let him look a little higher to the Greek, where he will find three things conſiderable of this letter. 1. That it is no double conſonant, but expreſt with one ſingle character, γ. 2. That it is expreſt not by a letter of a diſtinct tribe, as in the Latin, but by one of its own fraternity, that is, by a letter formed with the ſame cloſure of the organs with itſelf. 3. That it never goes before any other conſonant in that ſame ſyllable, but thoſe of its own tribe γ, κ, χ, ξ, which is according to the true reaſon and rules of compounding conſonants in the end of a ſyllable, as I ſhall make appear by and by. The Romans, finding that it was a ſonorous letter, reject γ as being a ſemimute, and ſubſtitute for it *n*, agreeing with it formally in that ſame analogy of ſound, but differing from it materially, as being formed by a diſtinct cloſure of organs.

Great Voſſius may excuſe my being ſo long upon this one letter; for he, after ſpending a whole chapter upon it, concludes with a profeſt uncertainty of judgment, whether to make it a ſingle letter, a *sesquilitera*, or a double conſonant. I thought once I had been ſingular in my opinion about it, but afterwards meeting with Doctor Wallis's Engliſh Grammar, I perceived that he had given the ſame account of it long before me.

The ſemicloſe ſounds are of two ſorts; ſome of them are formed from

the wholeclose sounds and are called aspirates, because they are formed by a partial opening of the organs, and sending forth the breath thro the mouth; hence the number of them are six, *f*, *th*, *χ*, from *p*, *t*, *k*, and *v*, *th*, as in *that*, *gh* from the semimutes *b*, *d*, *g*; for there can be no aspirates from *m*, *n*, *ng*. 2. That nimble instrument of articulate voice, the top of the tongue, brings forth three more semiclose sounds, *l*, *r*, *s*, and so doubles the number of letters formed by the other organs. 1. *L* is formed by a close appulse of the top of the tongue to the palate, the sides not touching, but leaving an open passage, which distinguishes it from *n*, where the appulse makes a perfect closure. 2. The appulse is from the sides of the tongue, the top not touching, but leaving an open passage to force out the breath; hence is formed the letter *s*. 3. A repeated or multiplyed appulse of the tongue to the palate, by a quick motion of trepidation which produces *r*. *S* has affinity to the close mutes, *p*, *t*, *k*, and therefore admits of being raised to a semimute, *z*, both of which are capable of aspiration, as the close mutes and semimutes, *sh*, *zh*. These seem to me to be all the simple consonants in nature perfectly distinct, and to be made use of in a Philosophical Language, for which this was first intended. And I think that this analysis of them from their physical causes is plain and easy, for to pursue all the minute differences of sounds, as it were endless, so were it useless.

I come now to speak of compounding two or more consonants into one syllable, and that two waies, either in the beginning or end of it; a thing well to be considered by him who undertakes to frame a language by art from the principles of nature, and of no small use in fitting a Grammar for deaf persons.

That I may proceed the more distinctly in this enquiry, I will begin with the definition of a syllable, and passing by several other descriptions, I will keep to that of Priscian and approved by Vossius, as being most full and apposite to my purpose: *Syllaba est vox literalis, quæ sub uno accentu et uno spiritu indistanter profertur.* Where I suppose by *sub uno accentu*, and *uno spiritu*, there can be no more than one vowel or diphthong in a syllable, which, as a *terminus communis*, unites the extreme consonants on each side, even as the *copula* unites the subject and the predicate, making one proposition.

My firſt rule ſhall be—To ſpeak properly and in a ſtrict ſenſe, there can be no compoſition of conſonants amongſt themſelves, either in the beginning or end of a ſyllable, but what is preternatural and inconſiſtent with the definition of a ſyllable. Who does not perceive, that even in the compoſition of mutes and liquids in the beginning of a ſyllable, as *prat*, *plot*, which of all compoſitions of conſonants is moſt common and alſo judged moſt eaſy, as not making the preceding vowel long by poſition, yet I ſay, even in thoſe it is eaſy to perceive a *distantia terminorum*, and that they are united by a rapid ſpirit, as a *terminus communis*, and cannot poſſibly be otherwiſe, ſeeing they are formed by diſtinct cloſures of the organs; and therefore there muſt be a *transitus* from the one to the other, which appears yet much more evident in the end of a ſyllable, with which kind of compoſition our Engliſh abounds very much, as *table*, *riddle*, *saddle*, *little*, &c.

It is true, in ſome compoſitions of conſonants, the *transitus* not being from organ to organ, but from one degree of vocality to another, as in *lamp*, *hand*, *ink*, the *transitus* here is ſo quick, that it may be ſaid to deceive the ears; much like the colours of the rainbow to the eye, as it is in that ingenious deſcription of Arachne's Web.—Ovid. Lib. 6. Met.

In quo, diversi niteant cum mille colores,
Transitus ipse tamen spectantia lumina fallit;
Usque adeo quod tangit idem est, tamen ultima distant.

But, paſſing by the dictates of right reaſon and art, which certainly have not been followed in the primary inſtitution of any language, unleſs it be of the Hebrew alone, let us look to uſe which is the ſovereign lawgiver to all languages. And more particularly to the uſage of the Greek, which gives laws of Orthography to all the Occidental Languages; and, firſt, for the compounding of conſonants in the beginning of a ſyllable.

Had the Grecians been as careleſs of Euphony and poliſhing their words in the terminations, as they have been in the initial ſyllables, their language had been as much inferior to ſome others in Euphony, as now it is eſteemed more pleaſant and graceful. What more rude ſounds, uneaſy to be pro-

nounced, and harſh to the ear, than ψάλλω, ζάω, ξαίνω, χθὼν, φθίσις, πτῶσις, δνόφος, βδήλυγμα, μνῆμα, γνῶσις, κτῆμα, κνάκων, πνεῦμα, θνήσκω, τλήμων, &c. What cauſe to aſcribe this to I am uncertain, whether to the rudeneſs of their language together with others, in its firſt origine, or to ſome modiſh affectation of times and humors, or more particularly to a poetical humor of ſyncopizing and contracting their words, which ſeems to me moſt probable. But this we ſee is certain, that they have taken to themſelves ſuch a liberty of compounding conſonants in the beginning of a ſyllable, that their greateſt admirers, the Romans, have forſaken them in this; there ſcarce being any ſuch double conſonants, as any in the fore-mentioned examples in the beginning of a word, in all the Latin Tongue, unleſs it be in ſome few words which are manifeſtly of a Greek origin. They have gone ſo far, that almoſt no rule can be formed for their initial ſyllables, but *quidlibet cum quolibet.* Howbeit, I will endeavor to reduce the uſage of the Greek, in this particular, to ſome general rules.

Firſt, There is no double conſonant to be found in the beginning of a Greek word, but one of them is a lingual; theſe are, *n, d, t, l, r, s, z, th,* θ, *sh, zh.* Hence I obſerve that Voſſius goes too far when he bids, in imitation of the Greek, to divide *a-gmen, te-gmen,* unleſs he could have produced authority for a ſhort vowel before this poſition, or a word beginning with *gm,* neither of which I think can be found.

2. The liquids, commonly ſo called, *l, m, n, r,* add *ng,* never come before other conſonants, or one another in the beginning of a word, except μνάομαι.

3. None of the cloſe conſonants,

Labials,	*p, b, m,*
Linguals,	*t, d, n,*
Gutturals,	*ng,* γ, *k,*

or their aſpirates,

Labials,	φ, *v,*
Linguals,	θ, *th,*
Gutturals,	χ, *gh,*

if they be of the ſame organ, can be compounded with one another; except δν as δνόφος, θν as θνήσκω. In theſe negatives, the Latin, and I think other modern languages, do agree with them.

For affirmative rules, the firſt ſhall be—The liquids *l r* come frequently after the mutes and ſemimutes, with their aſpirates, as,

πλέω	γλάφω
πρὸ	γραῦς
τρήω	φλέβω
τλῆμα	
κλείω	φρυγέω
κραυγή	θλίβω
βλάπτω	θρέω
βρέμω	
δλ-	χλαμὺς
δράω	χράομαι.

The rule is univerſally true *de jure*, tho not *de facto;* or, it is true *de generibus singulorum*, tho not *de singulis generum*. Hence, tho there be no δλεπω, yet analogy would bear it as well as βλέπω or γλάφω. So in Latin, tho there be no words beginning with *tl*, yet *tlarus* would be as analogical as *clarus* or *planus*. So in Engliſh, *tlash* were as euphonick as *plash*, *clash*.

2. *S*, in the beginning of a word, comes before all kinds of conſonants in that ſame ſyllable; *i. e.* it is compounded with *genera singulorum*, tho not with *singula generum*.

1. For the mutes, *p*, *t*, *k*, and their aſpirates φ, θ, χ, it is compounded with them all, as, σπάω, σύπτω, σκέπτω, σφεῖς, σθένος, σχῆμα. 2. The ſemimutes, β, δ, γ, it is only found with β, as σβέννυμι, and by the Dorick dialect with δ, as κωμάσδω for κωμάζω. 3. Of the ſonorous or naſales, μ, γ, γγ, it is found only with μ, as σμέρδω. *S* is not to be found before any of theſe three conſonants in Latin, unleſs it be in words taken from the Greek; and yet our Engliſh abounds with examples both of *sm* and *sn*, as *small*, *smooth*, *smite*, *snatch*, *snow*.

Except from the former rule its two ſifter-ſemicloſe linguals, *r*, *l*, before which it never comes in Greek or Latin, tho *sl* frequently in Engliſh, as *sleep*, *slow*, and tho *s* itſelf come not before *r*, yet its aſpirate *sh* is found with *r*, as *shrine*, *shrewd*.

3. *S*, in the beginning of a word, comes after ſome both of the mutes and ſemimutes, *de facto*, and therefore might come after them all, *eodem jure*, ψ, ζ ξ, *i. e. ps*, *ds*, *ks*. Here it comes after two mutes, *k*, *p*, and one

ſemimute, *d*. The reaſon in nature were the ſame for *bs*, *gs*, *ts*, in the beginning of a ſyllable; but *s*, after any other conſonant in the beginning of a ſyllable, ſounds harſh and layes a force upon nature. What could induce the Grecians to ſingle out theſe three double conſonants, ψ, ζ, ξ, contracting them into one ſingle character, and placing them in the alphabet amongſt the ſimple elements of letters, is not eaſy to gueſs. Had they made a more ſoft and melting ſound than other double conſonants, this might have paſt for a tolerable reaſon; but the caſe is quite contrary, for they make a ſtronger poſition after a ſhort vowel than many other double conſonants do: or, if frequency of uſe had been the inducement, this alſo had been tolerable; but even in this they muſt give place to many other double conſonants, unleſs perhaps it may be thought that the frequency of ψ and ξ, in the future tenſes of verbs, might have occaſioned this abbreviation. Voſſius gueſſes at the origin of ψ, that it has been an imitation of the Hebrew ש. If he had made ζ and ξ to be of the ſame origin, his conjecture had been by much the more probable, for there is fully as great reaſon for theſe as for that. The affinity of ξ to ש is all one with ψ to ש, for both of them are compounded of *s* following a mute. Again, the affinity of ζ to ש is no leſs, for tho the one be mute, the other ſemimute, yet they belong both to one organ of formation, which the Hebrews take notice of as the greater affinity; ſo that if an imitation of the Hebrew may paſs for a probable reaſon of this grammatication, it is much more likely that a threefold abbreviation would induce them to this imitation ſooner than a ſingle one, ſpecially conſidering that *s* never follows another conſonant in compoſition in the beginning of a word, but in theſe three. I might add, that the Hebrew Grammarians will ſcarce allow ש to be a double conſonant, tho I dare not undertake to defend them in this.

My next rule ſhall be for trible conſonants in the beginning of a word. 1. There can no word begin with three conſonants but where *s* is one. This is not only true in Greek and Latin, but I think alſo in our vulgar European languages. 2. *S* never makes a triple conſonant in the beginning of a word, but with a mute and liquid following, and this but rarely in Greek, as σπλην, στλεγγίς, στρατὸς; ſo in Latin, as *scribo*, *spretus*, *stratus*, tho

the compoſition of *s*, with any either ſingle or double conſonant in the beginning of a word, ſeems to be of no difficult pronounciation. And now I come to double and trible conſonants in the end of a ſyllable.

I think our Engliſh Tongue, with its mother Saxon, abounds more with this kind of cloſure or ending of words with double and trible conſonants, than any other common language, which makes us cenſured by neighbouring nations, by comparing our pronounciation to the barking of dogs; for our words being for the moſt part monoſyllables, and often ending with a harſh colliſion of double and triblé conſonants, and admitting no apoſtrophe, this makes us take the more time, and uſe the more force to utter them.

1. The moſt natural and eaſy compoſition of conſonants, either in the beginning or ending of a ſyllable, is that of the mutes and ſemimutes following the ſonorous letters of their own reſpective organs of formation, as in theſe examples:

mb	*lamb, dumb, comb,*	nt	*ant, hint, hunt,*
mp	*lamp, imp, lump,*	ngg	*thing, long, dung,*
nd	*hand, blind, round,*	ngk	*think, rank, drunk.*

2. The compoſition of two conſonants next for facility to the former, is when the three ſemicloſe linguals, *l, r, s,* come before other conſonants in the end of a ſyllable. Examples in Engliſh are obvious; it is true, not of theſe three coming before all other letters, yet the reaſon is the ſame for all, tho uſe be not.

3. *S*, in the end of a word, according to the uſe of our Engliſh, makes a double conſonant after any other letter, unleſs it be after *q, z*. Other double conſonants there are in the end of a word, but being very irregular and of a harſh ſound, I paſs them by, ſuch as, *soft, length, right, apt,* &c.

4. For trible conſonants in the end of a ſyllable, there is none found in any language but where *s* makes one. I know the Dutch write Handt, but I ſuppoſe they muſt pronounce either *hand* or *hant*, for a mute and ſemimute of that ſame organ are inconſiſtent ſounds. And as for our *strength* and *length;* 1. Tho they be written with four conſonants, yet we

ſound but two, neither of which can be written in Engliſh but with two characters; but, 2dly, I think the moſt genuine pronounciation of theſe two words is, as if they were written *strenth* and *lenth*, according to the Northern dialect.

5. And laſtly, allowing two *ss* in two diſtinct places, which often happens, there may be, and are, *de facto*, in Engliſh four conſonants after a vowel in that ſame ſyllable, as in *firsts*, *thirsts*.

This doctrine of double and trible conſonants, ſo far as concerns the ending of words, has but little place in the learned languages; yet examples are found, both in Greek and Latin, even of trible conſonants, as λάριγξ, *stirps*. Where, obſerve that there are no words in Greek ending either in double or trible conſonants, but where *s* either virtually or expreſsly is the laſt, and but very few in Latin ending in other double conſonants; ſome in *nt*, as *amant*, *sunt*, ſome few in *nc*, as *hinc*, *hunc*, in *st*, as *est*, *post*.

My laſt enquiry about double conſonants ſhall be—How many may come together in one ſyllable? To which I anſwer—Firſt, If we follow reaſon and the authority of the ancienteſt language, there can come no more than two, one before and another after the vowel. 2dly, If we follow the uſage of the other two learned languages, Greek and Latin, ſecluding the letter *s*, there can be no ſyllable of above four conſonants, two before and two after the vowel. 3dly, Admitting *s*, which comes both before and after moſt letters, there may be a ſyllable of ſix conſonants, three before and three after the vowel. I grant there is no example found, either in Latin or Greek, of above five conſonants, yet there are many examples in both of three conſonants in the beginning, as γράφω, *scribo*; ſo of three in the end, as ῥάξ, *stirps*; whatever is above this, is harſh and barbarous.

I have heard learned men of the Poliſh nation affirm, that there is a monoſyllable of nine letters in that language, the orthography of which I took from the hand of a perſon of honour of that nation, thus *chrzaszcz*. This word I have often heard pronounced by natives, and have myſelf been commended by them for my imitation; but to ſtrangers it ſeems a barbarous ſound, and reaches not the expreſſing of the power of all the letters

with which it is written. Voſſius affirms as much of the Dutch. The word he inſtances in is t'strengst. But I am ſure if this be allowed for a monoſyllable, there may be a monoſyllable of eleven letters, according to the analogy both of the Dutch and Engliſh; or rather, I may ſay, that there can be no bounds ſet to the tongue in this particular. For, firſt, if t'strengst, why not st'strengst; for it is clear, even from the ſame inſtance, that *s* may come before *t* in that ſame ſyllable. If it be ſaid, that the letter *s* cannot be repeated thrice, in diſtinct places of that ſame ſyllable—Firſt, I anſwer by retorting, much leſs can *t* be repeated thrice as here; for, laying this one word aſide, I think it will be hard either to prove by reaſon, or to bring another inſtance out of any language whatever, where a word conſiſting of three *ttt*, disjoyned from one another by the intervention of other letters, is eſteemed a monoſyllable. 2dly, The analogy of the Engliſh allows of ſuch a monoſyllable, as *spasms*, *schisms*.

Again, if ststrengst, why not ststrengsts, and ſo *in infinitum*. That *s* after *t* is conſiſtent in the end of a ſyllable, our Engliſh abounds with examples, as *tasts*, *fasts*. But here it is obſervable, that this compoſition we admit of, *s* coming both before and after another conſonant in the end of a ſyllable, is very harſh and uneaſy, and ſcarce to be found in any other language. The French make many ſhifts to avoid the harſhneſs of *s*, either before or after another conſonant, and chiefly in the end of a ſyllable; if *s* go before, they leave it out, as in *haste*, *viste*; if it come after, they leave out the conſonant that goes before it, as in *loups*, *animaux*. Another thing obſervable of *s* with its affinis *l*, when they come alone without the implication of other conſonants, they are of an eaſy and graceful pronounciation. Homer ſeems to have loved them, as in theſe:

Αλλα συ σησιν εχε φρεσι—
——Ενι φρεσι βαλλεο σησι.

That the preſs ſhould have ſtript theſe broken ends of verſes of the unneceſſary and troubleſome luggage of ſpirits and accents, is neither the compoſitor nor the corrector's fault; I am obliged to excuſe them and take the fault, if there be any, upon myſelf, or rather lay it over upon the

author, who, were he alive, he would excuſe both me and himſelf by the uſe of the times he lived in; and uſe we know is the ſupreme law in all languages. But if all this do not ſatisfy the critical Helleniſt, then I muſt add further, that uſe in the preſent caſe will even dare to appeal to right reaſon; for whatever may be ſaid for the cumberſome tackling of ſpirits and accents in proſe, yet in a verſe accents are downright nonſenſe, unleſs it be *tollendæ ambiguitatis causa* in æquivocal words.

That all other appendages beſide the letters are unneceſſary and troubleſome, I ſhall inſtance only in one word, which is ſo overgrown with the rickets, that the head is much greater than the whole body; for whereas the letters of the word are but three, the other appurtenances of it are five, and had it all that ſwelling furniture about it in the gloſſology which it hath in the typology, it would choke one to pronounce it. But he muſt have more critical ears than mine, that can perceive five diſtinctions in ἔῤῥ', which are not to be heard in our Engliſh *err*. That this is not a word either made or ſought by me, appears by this paſſage of a common epigram:

ερρε ποθ' αδην
ἔῤῥ' εκει ενψυσω πατριδα και γενναν.

And here I ſhall take the liberty to go one ſtep further out of my road, by taking notice that the Grecians have laſht out a little too far, in that which is thought to be the greateſt grace of their language; that is, their words ending much in vowels and diphthongs, and theſe frequently making pure ſyllables, one, two, or more, without the intervention of a conſonant. One, two, or at moſt three, one would think were enough for Euphony; but four, five, or ſometimes ſix in the end of a word, I think is too much, ſpecially if they make ſo many ſyllables: ἀργύρεα τοξα ſounds well; ἀργυρέα βιὰ is yet more ſoft and melting; and ἀργυρέοιο βιοῦ ſounds high and lofty from the mouth of a poet, and ſymbolizeth with the more ſymbolical hemiſtich preceding it;

Δεινη δε κλαγγη γενετ' αργυρεοιο βιοιο.

But βιοῦ and by a dialyſis βιοῦ, is too ſoft and luſhious. And for ἀἀἀ

and βοῦς, I know not what other cenſure to paſs on them, but that they are childiſh and ridiculous trauliſms. It is true, that βοῦς, in the typology of the word, has its ſyllables diſtinct enough, but the beſt can be ſaid of it will leave them too identical in the Gloſſology. Again, for *æææ*, which is the word of the greateſt number of vowels without a conſonant, that I have happened to meet with, tho it be manifeſtly of a Greek origin, yet I know not where to father it upon any Greek author, *totidem literis et syllabis;* which makes me ſtrange the more to ſee the grave and manly Roman, who, in his imitation of the effeminate Græculus, hath with a wonderful judgment, ſhall I ſay, or happineſs, equally avoided the extremes of too much harſhneſs in the beginning of his words, and too much ſoftneſs and delicacy in the end of them; yet in this one word to have outdone him in number of vowels, tho not of ſyllables. Ovid is my author for this. Metamorph. Lib. 4.

Nec tenet ÆÆÆ genetrix pulcherrima Circes.

But to return from this digreſſion to another obſervation upon the letters *l* and *s*. Theſe two letters ſeem to me to make a great impreſſion upon the body of the French Tongue, as the particles and chiefly the pronouns do in all languages, becauſe of their ſo frequent uſe in the *provocabula* of that language. I have often been pleaſantly affected to hear two talking French, when the pronominal words recurred often, ſuch as, *ce, cett, c'est, cettui, cettuici, cettuila, lui, celui, icelui, elle, icelle, celleci, cellece,* &c., and many ſuch like deſcending from the fruitful ſtock of *ca* and *la;* for theſe words coming from a French mouth, make a pretty ſoft whiſpering noiſe affecting the ear pleaſantly. Our own Engliſh pronominal words are none of the moſt graceful pronounciation, chiefly becauſe of the ſo frequent uſe of *th*, as *thou, thy, that, the, this, those, their*, &c. This makes outlandiſh men call us *blæsi*, the ſound of *th* never being heard amongſt them but by liſpers, who pronounce *s* vitiouſly by the power of this letter. I will conclude with rectifying an univerſal miſtake of all that have written of Grammar, for want of conſidering the nature of double conſonants. It has paſt for current amongſt all Grammarians, that we are to divide words

in all other languages, following the uſe of double conſonants among the Grecians, as *ma-gnus, do-ctus, le-ctus, a-ptus,* and not *mag-nus, doc-tus, lec-tus, ap-tus.* Voſſius goes yet further, as I have had occaſion to mention before, and bids us divide *se-gmen a-gmen,* tho there be no precedent for this in Greek. One ancient Grammarian goes yet a ſtep further, and bids follow this rule even in compounded words, as *o-bruo, o-bligo,* which notwithſtanding others do except. But Priſcian does well refute this author's opinion by this argument, that poets never uſed theſe ſyllables ſhort; ſo that for the very ſame reaſon we muſt not divide *le-ctus, do-ctus,* becauſe they are uſed ſtill long by poſition.

Tho this reaſon be convincing enough, yet there is another reaſon worthy to be mentioned in this place, which alſo illuſtrates and confirms what I have ſaid before, that the primitive words of other languages, excepting the Hebrew, are for the moſt part monoſyllables. In all primitive words, I diſtinguiſh between radical and ſervile letters; the radical part of the word, generally both in Greek and Latin, is effable in one ſyllable, *amo, doceo; am* and *doc* are the radical letters, *o* in the one and *eo* in the other being ſerviles, and ſo changeable in the oblique inflexion of the words; therefore I think it were reaſonable, in dividing the word, to diſtinguiſh between what is radical and what is ſervile.

POSTSCRIPT.

Tho I make no queſtion but I have ſaid as much as may enable any perſon of ordinary capacity, with extraordinary diligence, to become if not a Didaſcalocophus at leaſt a Hypodidaſcalus to ſome more expert Maſter, yet my main deſign being not ſo much to make every Grammaticaſter a Didaſcalocophus, as to ſatisfy learned men that Cophology is none either of the ἔργων ἀδυνάτων, or δυσνοήτων; this has made me the ſhorter in the practical part. So that any practitioner in this art, not more maſter of it